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ABSTRACT

The State Bilingual Education Program and the Education Consolidation and Improvement Act (ECIA) Chapter 1 Migrant Education Program are used to meet the special education needs of bilingual and migrant students in the Saginaw (Michigan) city school district. These programs operated at 24 elementary schools, 4 junior high schools, and 2 high schools during the 1991-92 school year, the sixth year that students in both programs were assessed in reading and mathematics using the California Achievement Tests (CAT) for program evaluation purposes. Approximately 855 students in kindergarten through grade 12 participated in the 1991-92 program. State bilingual results show a decrease from the previous year in the percent of grade levels meeting performance standards in both reading and mathematics, with a 25 percentage point decline in reading, to 41.7 percent, and a 34.8 percentage point decline in mathematics, to 34.8 percent. Migrant results also show a decrease from the previous year, although much smaller, in the percent of grade levels meeting the standard. When reading data were examined by objective from the CAT, students in both programs show a decline from the previous year. Recommendations for program improvement are grouped into four general areas: (1) reduce program variations between sites; (2) increase parent participation; (3) increase and improve teacher inservice training; and (4) consider establishing a centralized site for program services. Ten tables summarize evaluation findings. Five appendixes, with 25 additional tables, add information about program procedures and student achievement. (SLD)

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EVALUATION REPORT

STATE BILINGUAL AND ECIA
CHAPTER 1 MIGRANT PRODUCT
EVALUATION REPORT

1991-92

DEPARTMENT OF EVALUATION SERVICES

- PROVIDING ASSESSMENT, PROGRAM EVALUATION AND RESEARCH SERVICES -

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STATE BILINGUAL AND ECIA CHAPTER 1 MIGRANT PRODUCT EVALUATION REPORT

1991-92

An Approved Report of the

Department of Evaluation, Testing, and Research

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July, 1992

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PROGRAM DESCRIPTION

The Section 41, State Bilingual Education program and the E.C.I.A. Chapter 1, Migrant Education program are programs designed to meet the special educational needs of State Bilingual and Migrant students in the School District of the City of Saginaw. These programs were operated by the school district during the 1991-92 school year.

The State Bilingual and Migrant programs operated at 24 elementaries, four junior highs, and both high schools. (See Appendix A for the number of State Bilingual and Migrant students participating by building as of January 13, 1992 and November 26, 1991 computer runs respectively.) Instruction was provided primarily on a pull-out basis, with each student receiving approximately thirty minutes of supplemental instruction per week.

STATE BILINGUAL PROGRAM

The State Bilingual program served approximately 760 students during the 1991-92 school year. The vast majority of the students were Hispanic, with a small number of Laotian students completing the program population.

Instruction was provided to K-6 students in reading. Students in grades 7-12 also received instruction in the basic skills, as well as counseling and support services.

The State Bilingual program served students whose primary language was other than English, or who came from a home environment where a language other than English was regularly used.

MIGRANT PROGRAM

The Migrant program provided supplemental reading instruction for the children of Migrant workers. A total of approximately 855 students K-12 participated in the 1991-92 program.

The Bilingual program served students whose primary language was other than English, or who came from a home environment where a language other than English was regularly used. The Migrant Education program served students whose families follow the crops or fishing industry for a livelihood, and as a result the students have experienced educational discontinuity.

ELIGIBILITY CRITERIA FOR BOTH PROGRAMS

Although the program philosophies differ, the student populations overlap because, in most circumstances, a student in the Migrant program comes from an environment where English was not the primary language spoken in the home. In view of this fact, these two programs cooperate as one, the staff serving the students were the same, and all materials and activities were shared by the programs.

A complete description of student eligibility criteria for each program is given in Appendix B. It should be noted that the State Bilingual program does have a complex set of criteria to be satisfied before a child can participate. However, the basic element in the eligibility process is collecting a Home Language Survey (HLS) from all potentially eligible students district-wide.

PROCEDURES FOR EVALUATION

Both process and product evaluations were undertaken for the State Bilingual and Migrant programs. This year's process evaluation was accomplished by a 23-item questionnaire that focused on the following: 1) combined operational aspects; 2) Migrant specific operational details from the program proposal; 3) Bilingual specific operational details from the program proposals, 4) recent actions to change program operations for State Bilingual and Migrant, and 5) future program improvement ideas related to both programs. All 19 staff members were given the questionnaire during the Friday, January 31, 1992 staff meeting. Respondents were to return the completed questionnaire no later than February 7, 1992. The results of these process surveys (N=17) were presented in a separate report published and disseminated earlier in the year.

The product evaluation, which is the focus of this report, addresses the results of student test performance. The California Achievement Tests (CAT) Form E and F normed the Spring of 1985 served as the evaluation instruments for grades K-12 (Form E for all grades except grades 9 and 10). This was the thirteenth year that norm referenced tests approved by the Michigan Department of Education were used for program evaluation. The locally adopted performance standard used to evaluate program success was that: mean post-test normal curve equivalent (NCE) scores will evidence improvement over pre-test NCE scores. Attainment of this standard means that student rates of learning have exceeded their normal rates. The reader should bear in mind that most of these students have not learned at normal rates in the past.

Students in grades K-12 were pre- and post-tested with the CAT on a spring-to-spring basis to determine their achievement in reading and mathematics as required by the funding sources. A new feature for a second year is

the inclusion of advanced skills for reading (reading comprehension scores) and mathematics (mathematics concepts and application scores) in the product evaluation review. These two subtests are part of the total reading or mathematics scores. As in past evaluation reports, the total reading and total mathematics scores will serve as the measure of basic skills progress. All testing was performed on-level, that is, students took a test at a level of difficulty appropriate for their grade.

This is the third year that the product evaluation was further refined to look specifically at the elementary level (grades 1-6) reading comprehension objectives instructed over the course of the programs. These reading objectives, which are measured on the CAT, are stated in the chart below. The chart gives the grade(s) at which they are taught/measured.

	GRADE					
	1	2	3	4	5	6
LITERAL COMPREHENSION						
33 Stated Main Idea The student will identify the main idea stated in a passage.	X					
INFERENTIAL COMPREHENSION						
36 Central Thought The student will infer the central thought of a passage, such as the main idea, the author's purpose or viewpoint, or the tone or mood.		X	X	X	X	X
37 Interpreting Events The student will interpret a passage by drawing conclusions, identifying cause and effect relationships, or predicting outcomes.	X	X	X	X	X	X
CRITICAL COMPREHENSION						
39 Writing Techniques The student will interpret figurative or persuasive language or interpret structural techniques of writing.				X	X	X

The locally agreed upon standard was that program participants will equal or exceed district-wide Spring, 1990 mastery levels on these selected CAT reading objectives (see Appendix C for the specific mastery levels by objective and grade).

PRODUCT EVALUATION RESULTS

Overall achievement results in reading and mathematics for basic as well as advanced skills will be presented for each program. Grade level results by subject area for each program will be presented and discussed. Then the combined results of the two programs will be summarized. Finally, reading objective mastery results for grades 1-6 will be shown and discussed.

Where relatively few students were tested at any grade level and for a building, the results should be viewed with caution.

OVERALL ACHIEVEMENT FOR STATE BILINGUAL

Reading Basic Skills

Table 1 below contains the grade level results for the State Bilingual program in basic reading skills.

TABLE 1. ATTAINMENT OF THE PERFORMANCE STANDARD* IN TOTAL READING (BASIC SKILLS) IN TERMS OF NORMAL CURVE EQUIVALENT (NCE) FOR STATE BILINGUAL PROGRAM PARTICIPANTS TESTED SPRING TO SPRING, GRADES 1-12, 1991-92.

Grade	Number of Students Tested	Normal Curve Equivalent			Performance Standard* Attained
		Pre Mean	Post Mean	Mean Gain/ Loss	
1	172	46.6	44.7	-1.9	No
2	115	44.2	46.8	2.6	Yes
3	21	37.9	40.8	2.9	Yes
4	14	40.1	35.4	-4.7	No
5	16	39.3	40.7	1.4	Yes
6	20	37.2	37.1	-0.1	No
7	7	21.0	21.2	0.2	Yes
8	10	24.2	27.2	3.0	Yes
9	14	34.6	34.8	0.2	Yes
10	5	43.2	41.8	-1.4	No
11	3	23.0	39.3	16.3	Yes
12	4	39.0	30.0	-9.0	No

*Post-test normal curve equivalent (NCE) score will evidence improvement over pre-test NCE score.

Students in grades 2, 3, 5, 7, 8, 9, and 11 demonstrated positive NCE gains between 0.2 to 16.3 NCE units. Students in grades 1, 4, 6, 10, and 12 did not attain the standard. Since grades 7, 10, 11, and 12 had less than ten students per grade, the results should be viewed cautiously. Across the board, seven of the 12 (58.3%) grades attained the performance standard in basic reading skills.

Reading Advanced Skills

Table 2 below contains the results by grade for State Bilingual participants in advanced reading skills.

TABLE 2. ATTAINMENT OF THE PERFORMANCE STANDARD* FOR READING COMPREHENSION (ADVANCED SKILLS) IN NORMAL CURVE EQUIVALENT (NCE) SCORES FOR STATE BILINGUAL PROGRAM PARTICIPANTS SPRING TO SPRING, GRADES 1-12, 1991-92.

Grade	Number of Students Tested	Normal Curve Equivalent			Performance Standard* Attained
		Pre Mean	Post Mean	Mean Gain/ Loss	
1	172	45.5	45.5	0.0	No
2	115	45.4	48.1	2.7	Yes
3	21	42.1	41.2	-0.9	No
4	14	46.1	37.0	-9.1	No
5	16	41.8	42.0	0.2	Yes
6	20	41.9	39.2	-2.7	No
7	7	23.0	20.8	-2.2	No
8	10	29.5	28.5	-1.0	No
9	14	39.1	36.2	-2.9	No
10	5	49.6	48.2	-1.4	No
11	3	31.3	45.0	13.7	Yes
12	4	41.7	26.2	-15.5	No

*Post-test normal curve equivalent (NCE) score will evidence improvement over pre-test NCE score.

As can be seen in Table 2 above, students in grades 2, 5, and 11 demonstrated positive NCE gains from 0.2 to 13.7 NCE units. State Bilingual students in grades 1, 3, 4, 6, 7, 8, 9, 10, and 12 did not attain the standard and demonstrated no gain or losses between 0.0 and -15.5 NCE units in advanced

reading skills. However, since less than ten students were present in grade 7, 10, 11, or 12, these results should be viewed cautiously. Overall, three of the 12 (25.0%) grades attained the performance standard in advanced reading skills.

Mathematics Basic Skills

Grade level results are presented in Table 3 below.

TABLE 3. ATTAINMENT OF THE PERFORMANCE STANDARD* IN TOTAL MATHEMATICS (BASIC SKILLS) IN TERMS OF NORMAL CURVE EQUIVALENT (NCE) SCORES FOR STATE BILINGUAL PROGRAM PARTICIPANTS TESTED SPRING TO SPRING, GRADE 2-12, 1991-92.

Grade	Number of Students Tested	Normal Curve Equivalent			Performance Standard* Attained
		Pre Mean	Post Mean	Mean Gain/ Loss	
2	114	55.9	51.4	-4.5	No
3	21	51.5	47.7	-3.8	No
4	14	50.3	40.7	-9.6	No
5	16	47.9	49.0	1.1	Yes
6	18	51.4	52.7	1.3	Yes
7	8	34.5	24.8	-9.7	No
8	10	43.1	35.0	-8.1	No
9	13	40.7	43.2	2.5	Yes
10	8	47.2	51.5	4.3	Yes
11	4	46.5	43.0	-3.5	No
12	4	48.5	48.7	0.2	Yes

*Post-test normal curve equivalent (NCE) score will evidence improvement over pre-test NCE score.

Students tested met the performance standard for basic mathematics skills at grades 5, 6, 9, 10, and 12. Tenth grade students demonstrated the greatest positive NCE gain of 4.3 NCE units while twelfth graders had the smallest positive gain of 0.2 NCE points. Results for grades 7, 10, 11, and 12 should be viewed again with caution because each grade level had less than ten students. Overall, five of the 11 (45.5%) grades attained the performance standard.

Mathematics Advanced Skills

Table 4 below presents grade level results for State Bilingual participants in advanced mathematics skills.

TABLE 4. ATTAINMENT OF THE PERFORMANCE STANDARD* FOR MATHEMATICS CONCEPTS AND APPLICATIONS (ADVANCED SKILLS) IN NORMAL CURVE EQUIVALENT (NCE) SCORES FOR STATE BILINGUAL PROGRAM PARTICIPANTS TESTED SPRING TO SPRING, GRADES 1-12, 1991-92.

Grade	Number of Students Tested	Normal Curve Equivalent			Performance Standard* Attained
		Pre Mean	Post Mean	Mean Gain/ Loss	
1	177	48.1	56.4	8.3	Yes
2	114	55.8	52.7	-3.1	No
3	21	49.7	49.7	0.0	No
4	14	46.5	40.6	-5.9	No
5	16	46.1	47.0	0.9	Yes
6	18	45.8	46.6	0.8	Yes
7	8	34.6	28.7	-5.9	No
8	10	34.3	28.8	-5.5	No
9	13	41.3	40.1	-1.2	No
10	8	51.0	48.3	-2.7	No
11	4	47.0	43.0	-4.0	No
12	4	43.7	43.7	0.0	No

*Post-test normal curve equivalent (NCE) score will evidence improvement over pre-test NCE score.

Students on the mathematics concepts and applications subtest attained the performance standard in grades 1, 5, and 6. First grade students demonstrated the greatest positive gain of 8.3 NCE units and the sixth graders showed the smallest positive gain of 0.8 NCE units. Since grades 7, 10, 11, and 12 each had less than ten students represented, the results of each should be treated cautiously. Across the board, three of the 12 (25%) grades attained the performance standard.

OVERALL ACHIEVEMENT FOR MIGRANT

Reading Basic Skills

Grade level results for Migrant students are presented in Table 5 below.

TABLE 5. ATTAINMENT OF THE PERFORMANCE STANDARD* IN TOTAL READING (BASIC SKILLS) IN TERMS OF NORMAL CURVE EQUIVALENT (NCE) SCORES FOR MIGRANT PROGRAM PARTICIPANTS TESTED SPRING TO SPRING, GRADES 1-12, 1991-92.

Grade	Number of Students Tested	Normal Curve Equivalent			Performance Standard* Attained
		Pre Mean	Post Mean	Mean Gain/ Loss	
1	76	40.6	42.9	2.3	Yes
2	65	43.2	44.7	1.5	Yes
3	53	39.9	42.5	2.6	Yes
4	50	48.8	43.7	-5.1	No
5	55	41.0	40.4	-0.6	No
6	45	41.9	41.8	-0.1	No
7	31	36.7	33.8	-2.9	No
8	36	33.1	33.9	0.8	Yes
9	26	44.1	44.0	-0.1	No
10	15	48.0	51.8	3.8	Yes
11	6	36.8	28.6	-8.2	No
12	8	34.8	33.7	-1.1	No

*Post-test normal curve equivalent (NCE) score will evidence improvement over pre-test NCE score.

Students tested obtained the performance standard at grades 1, 2, 3, 8 and 10. Grades 4, 5, 6, 7, 9, 11, and 12 failed to meet the standard. Since grades 11 and 12 had less than ten students each, the resulting gains should be viewed cautiously. Thus, five of 12 (41.7%) grades attained the performance for basic reading skills.

Reading Advanced Skills

Table 6 below presents grade level results for Migrant students in advanced reading skills.

TABLE 6. ATTAINMENT OF THE PERFORMANCE STANDARD* FOR READING COMPREHENSION (ADVANCED SKILLS) IN NORMAL CURVE EQUIVALENT (NCE) SCORES FOR MIGRANT PROGRAM PARTICIPANTS TESTED SPRING TO SPRING, GRADES 1-12, 1991-92.

Grade	Number of Students Tested	Normal Curve Equivalent			Performance Standard* Attained
		Pre Mean	Post Mean	Mean Gain/ Loss	
1	76	40.5	44.0	3.5	Yes
2	65	44.8	44.8	0.0	No
3	53	43.0	44.1	1.1	Yes
4	50	50.3	45.9	-4.4	No
5	55	43.1	43.3	0.2	Yes
6	45	44.3	43.0	-1.3	No
7	31	41.4	34.5	-6.9	No
8	36	35.5	36.9	1.4	Yes
9	26	49.3	43.6	-5.7	No
10	15	53.6	49.0	-4.6	No
11	6	40.6	32.5	-8.1	No
12	8	37.7	41.2	3.5	Yes

*Post-test normal curve equivalent (NCE) score will evidence improvement over pre-test NCE score.

Migrant students attained the performance standard in all grades except 2, 4, 6, 7, 9, 10, and 11. The greatest positive gain of 3.5 NCE units occurred in grades 1 and 12 and the smallest positive gain was observed in grade 5 of 0.2 NCE units. Again, since less than ten students were represented in grades 11 and 12 (six and eight students respectively) these results should be treated cautiously. Overall, five of 12 (41.7%) attained the performance standard in advanced reading skills.

Mathematics Basic Skills

Grade level results are presented in Table 7 below.

TABLE 7. ATTAINMENT OF THE PERFORMANCE STANDARD* IN TOTAL MATHEMATICS (BASIC SKILLS) IN TERMS OF NORMAL CURVE EQUIVALENT (NCE) SCORES FOR MIGRANT PROGRAM PARTICIPANTS TESTED SPRING TO SPRING, GRADES 2-12, 1991-92.

Grade	Number of Students Tested	Normal Curve Equivalent			Performance Standard* Attained
		Pre Mean	Post Mean	Mean Gain/ Loss	
2	64	56.4	54.4	-2.0	No
3	53	53.4	51.5	-1.9	No
4	49	58.1	51.5	-6.6	No
5	55	47.6	50.2	2.6	Yes
6	46	54.1	51.0	-3.1	No
7	31	52.6	43.4	-9.2	No
8	35	42.6	39.5	-3.1	No
9	27	50.8	50.4	-0.4	No
10	23	56.7	59.7	3.0	Yes
11	13	47.8	44.5	-3.2	No
12	6	43.6	43.1	-0.5	No

*Post-test normal curve equivalent (NCE) score will evidence improvement over pre-test NCE score.

Students tested obtained the performance standard at grades 5, and 10. Again, since less than ten students are present at grade 12, these results should be viewed cautiously. Across the board, two of the 11 grades (18.2%) attained the performance standard.

Mathematics Advanced Skills

Grade level results for Migrant students are presented in Table 8 below in the area of advanced mathematics skills.

TABLE 8. ATTAINMENT OF THE PERFORMANCE STANDARD* FOR MATHEMATICS CONCEPTS AND APPLICATIONS (ADVANCED SKILLS) IN NORMAL CURVE EQUIVALENT (NCE) SCORES FOR MIGRANT PROGRAM PARTICIPANTS TESTED SPRING TO SPRING, GRADES 1-12, 1991-92.

Grade	Number of Students Tested	Normal Curve Equivalent			Performance Standard* Attained
		Pre Mean	Post Mean	Mean Gain/ Loss	
1	76	45.2	50.2	5.0	Yes
2	64	54.5	54.5	0.0	No
3	53	53.4	51.3	-2.1	No
4	49	59.0	51.9	-7.1	No
5	55	48.4	51.4	3.0	Yes
6	46	53.0	48.9	-4.1	No
7	31	47.6	52.9	-4.7	No
8	35	42.3	39.8	-2.5	No
9	27	51.4	50.5	-0.9	No
10	23	55.3	56.7	1.4	Yes
11	13	44.5	40.2	-4.4	No
12	6	45.1	36.1	-9.0	No

*Post-test normal curve equivalent (NCE) score will evidence improvement over pre-test NCE score.

Migrant participants obtained the performance standard in grades 1, 5, and 10. Since only six students were pre- and post-tested at grade 12, these results must be viewed cautiously. Overall, three of 12 (25.0%) grades attained the performance standard in the advanced mathematics area.

OVERALL ACHIEVEMENT FOR STATE BILINGUAL AND MIGRANT PROGRAMS

Table 9 below presents in summary form the attainment of the performance standard by program, subject, and grade. As these data indicate, the State Bilingual students attained the performance standard in grade 5 in both subjects for both basic and advanced skills. The Migrant program failed to attain the performance standard at any grade in both subjects for both basic and advanced skills. Overall the State Bilingual program seemed slightly more effective in basic/advanced reading with 41.7% (10 of 24) grades attaining the standard than in basic/advanced mathematics with 34.8% (8 of 23). The Migrant program showed more effectiveness in reading with 41.7% (10 of 24) grade attainments than in mathematics with 21.7% (5 of 23) grades attaining the standard.

TABLE 9. ATTAINMENT STATUS* FOR BASIC AND ADVANCED SKILLS IN READING AND MATHEMATICS BY PROGRAM BY GRADE, 1991-92.

GRADE LEVEL	STATE BILINGUAL				MIGRANT			
	Reading		Mathematics		Reading		Mathematics	
	Basic	Advanced	Basic	Advanced	Basic	Advanced	Basic	Advanced
1	No	No	-	Yes	Yes	Yes	-	Yes
2	Yes	Yes	No	No	Yes	No	No	No
3	Yes	No	No	No	Yes	Yes	No	No
4	No	No	No	No	No	No	No	No
5	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
6	No	No	Yes	Yes	No	No	No	No
7	Yes	No	No	No	No	No	No	No
8	Yes	No	No	No	Yes	Yes	No	No
9	Yes	No	Yes	No	No	No	No	No
10	No	No	Yes	No	Yes	No	Yes	Yes
11	Yes	Yes	No	No	No	No	No	No
12	No	No	Yes	No	No	Yes	No	No
Total**								
Yes	7 (58.3%)	3 (25.0%)	5 (45.5%)	3 (25.0%)	5 (41.7%)	5 (41.7%)	2 (18.2%)	3 (25.0%)
No	5 (41.7%)	9 (75.0%)	6 (54.5%)	9 (75.0%)	7 (58.3%)	7 (58.3%)	9 (81.8%)	9 (75.0%)

*A "yes" attainment status means the average post-test NCE score was greater than the average pre-test NCE score.

**Total frequency distribution of attainment of performance by subject/skill, program, and grade.

The achievement results, which have been presented, were also tabulated by building. These data are presented in Appendix D.

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OBJECTIVE LEVEL ACHIEVEMENT FOR STATE BILINGUAL AND MIGRANT PROGRAMS

Table 10 below presents the attainment level of the performance criterion for the elementary reading comprehension objectives by grade.

TABLE 10. SUMMARY OF THE PERCENT OF 1991-92 STATE BILINGUAL/MIGRANT STUDENTS BY GRADE ATTAINING SELECTED CAT READING OBJECTIVES AS COMPARED TO AGREED UPON CRITERION PER GRADE LEVEL.*

GRADE	NUMBER TESTED	READING OBJECTIVE								
		33 Stated Main Idea**/ 36 Central Thought			37 Interpreting Events			39 Writing Techniques		
		Criteria %	1991-92 %	Criteria Achieved?	Criteria %	1991-92 %	Criteria Achieved?	Criteria %	1991-92 %	Criteria Achieved?
1	185	27	36	Yes	26	31	Yes	NA***	NA	NA
2	160	56	53	No	59	54	No	NA	NA	NA
3	79	60	42	No	63	50	No	NA	NA	NA
4	60	31	30	No	34	45	Yes	28	18	No
5	73	48	47	No	50	39	No	36	26	No
6	63	48	48	Yes	58	54	No	31	19	No

*State Bilingual/Migrant program participants will equal or exceed agreed upon mastery levels per grade. (See Appendix C for memo establishing NCE mastery criteria.)

**Objective 33 (stated main idea) applies only to grade one and Objective 36 (central thought) is applicable to grades two through six.

***NA = Not Applicable.

As these data indicate, the combined program participants attained the district-wide criteria across all objectives measured in first grade. The criteria was partially attained in grades 4 and 6 (1 of 3 objectives at each grade level). Participants failed to show mastery at district-wide attainment criteria for any of the objectives at grades 2, 3, and 5. Overall, the State Bilingual/Migrant students across all reading objectives showed 26.7% (4 of 15) of them attaining the district-wide criteria.

Failure to attain the district-wide criterion ranged from -1% (grades 4 and 5 - Objective 36 Central Thought) to -18% (grade 4 - Objective 36 Central Thought). See Appendix E for the objective attainment results by building and grade.

SUMMARY

The 1991-92 school year was the thirteenth year that students in the State Bilingual and Migrant programs were assessed in reading and mathematics, using a norm referenced test. This is the sixth year that the California Achievement Test (CAT) Form E/F normed in the Spring of 1985 has been used for program evaluation purposes.

The locally adopted performance standard for the overall program was that grade level post-test mean NCE scores would evidence improvement over pre-test scores.

The State Bilingual results show a **decrease** from the previous year in the percent of grade levels meeting the performance standard in both reading and mathematics. For the State Bilingual program the 25.0% points decrease in reading was from 66.7% meeting the same standard last year (16 of 24 observations) to 41.7% meeting the same performance standard this year (10 of 24 observations). The decrease of 34.8% points in mathematics was from 69.6% (16 of 23 observations) to 34.8% (8 of 23 observations).

The Migrant results also show a **decrease** from the previous year in the percent of grade levels meeting the performance standard in both reading and mathematics. The 4.1% points decrease in reading came about from 11 of 24 observations (45.8%) meeting the standard last year to 10 of 24 observations (41.7%) meeting the same standard this year. The 26.1% points decrease in mathematics was from 47.8% (11 of 23 observations) meeting the standard last year to 21.7% (5 of 23 observations) meeting the same standard this year.

A new evaluative feature added two years ago at the elementary level (grades 1-6) was the use of reading data by objective from CAT to measure progress. Three key reading objectives (main idea, interpreting events, and writing techniques) were to be mastered at equal or higher levels than mastery levels specified at the September 17, 1990 staff meeting (see Appendix C). Overall, the State Bilingual/Migrant students across all three reading objectives showed 26.7% (4 of 15 observations) mastery of the district-wide criteria. This is a 13.3% points decrease from last year when 6 of 15 observations (40.0%) attained criteria.

The recommendations that follow are based upon process and product evaluation results.

RECOMMENDATIONS

The recommendations that follow are based on this year's process and product evaluations and are intended to help bring about State Bilingual/Migrant program improvements in the following school year. These recommendations take nothing away from the current program that continues to address the multitude of needs of the disadvantaged language minority student. This year being no exception.

The recommended ideas and techniques offered below stem from a perceived problem and are just one of many ways to improve the performance of the program. As solutions are sought for optimum program operations, a dialogue/discussion should be undertaken to determine the best and most workable way to solve the perceived problem. The staff and evaluator should be brought into these discussions as has been the practice in the past so that all involved feel part of the proposed new operation of the program.

1. Reduce variations in the program between building sites by having the supervisor and State Bilingual/Migrant staff analyze the building results presented in Appendix D and E. Hopefully, a plan can be formulated to reduce (or control) these variations in program impact.

2. Research on parental and family involvement supports the pivotal role that families can play for increasing the educational accomplishments of their students. The State Bilingual/Migrant program can build upon parental involvement in several ways.

   - Parents or guardians are expected to affirm an agreement that clarifies the goals of the school and the obligations of parents, pupils, and school staff. Parental obligations include:

     - ensuring that their children go to bed at a reasonable hour and attend school regularly and punctually;

- setting high educational expectations for their children;

- talking to them regularly about the importance of school;

- taking an interest in their children's activities and the materials that the children bring home;

- encouraging their children to read on a daily basis;

- ensuring that independent assignments are addressed; and

- responding to queries from the school.

Schools only become successful when parents, pupils, and school staff work together.

- Parental participation must be fostered in the governance structure of the school and the State Bilingual/Migrant program through membership on task forces, planning councils, steering committees, etc.

- Parents must be given frequent opportunities to interact with the school program and school staff through an "open door" policy and a parent lounge, as well as receive training for providing active assistance to their children. Such training might include the following:

  - Skills for working with a child;

  - Academic skills necessary to understand what the child is doing;

  - Adult basic education training to provide parents with the necessary academic foundation; and

  - Training on how to assist a child to complete homework on a daily basis, etc.

3. A set of district supported inservice offerings to regular education staff should be continued and highlighted and strongly supported by curriculum heads (assistant superintendents for elementary, secondary, special and adult and continuation education) such that these training sessions enhance the awareness of staff regarding LEP students, increase the strategies available to deal effectively with multi-cultural issues in student learning, allow teachers a greater understanding of cultural differences and how these difficulties may be used to achieve greater academic attainment, etc.

4. Due to the small number of students at each of our school sites and the limited number of State Bilingual/Migrant staff members, it may be more feasible if a centralized site for State Bilingual/Migrant services at the elementary, junior high, and high school levels is established. These centralized sites would hopefully use site-based decision making where one of their major priorities would be greater academic achievement in LEP, Migrant, and minority students from multi-cultural backgrounds. The second language background and the cultural understandings of these students should be used as strengths to foster improved educational programs for these students. Hopefully, school-wide Chapter 1 funds and general fund support would be allocated to these sites to help alleviate the inadequate resources to carry out the mission of Bilingual/Migrant education and providing much needed assistance to disadvantaged language minority students.

APPENDICES

APPENDIX A

1991-92 COUNT OF PROGRAM PARTICIPANTS*

PROGRAM: **Total State Bilingual**

COUNT OF PROGRAM PARTICIPANTS

Building	K	1	2	3	4	5	6	Total
E. Baillie	1	1	2	1	0	1	1	7
Coulter	3	2	5	2	1	0	1	14
Emerson	8	8	9	0	1	1	0	27
Fuerbringer	10	14	1	1	0	1	0	27
N. Haley	12	8	5	1	3	0	1	30
Handley	6	10	2	0	0	0	0	18
Heavenrich	4	5	3	0	0	1	2	15
Herig	8	11	12	1	0	0	2	34
Houghton	3	6	5	1	1	1	0	17
Jerome	10	15	10	0	0	0	1	36
Jones	5	1	2	1	3	0	2	14
Kempton	10	5	3	2	0	2	0	22
Longfellow	11	18	12	6	0	0	0	47
Longstreet	1	4	1	1	1	0	1	9
J. Loomis	8	13	2	0	0	0	1	24
Merrill Park	15	9	12	2	0	1	0	39
C. Miller	9	13	10	0	0	0	4	36
J. Moore	13	14	14	0	1	3	0	45
Morley	3	1	1	0	1	0	0	6
J. Rouse	20	23	12	3	1	4	4	66
Salina	2	2	0	0	0	0	1	5
Stone	11	24	8	1	2	0	1	47
Webber Ele.	23	19	14	5	2	3	3	69
Zilwaukee	4	2	2	0	1	0	1	10
TOTAL	200	228	147	27	18	18	26	664

*Count as of January 13, 1992 computer run that included all participants.

APPENDIX A

1991-92 COUNT OF PROGRAM PARTICIPANTS*

PROGRAM: **Total State Bilingual**

COUNT OF PROGRAM PARTICIPANTS

Building	7	8	9	Total
Central Junior	3	2	3	8
North Intermediate	5	10	11	26
South Intermediate	5	8	5	18
Webber Junior	6	6	5	17
TOTAL	19	26	24	69

*Count as of January 13, 1992 computer run that included all participants.

1991-92 COUNT OF PROGRAM PARTICIPANTS*

PROGRAM: **Total State Bilingual**

COUNT OF PROGRAM PARTICIPANTS

Building	10	11	12	Total
Arthur Hill	11	7	6	24
Saginaw High	1	2	0	3
TOTAL	12	9	6	27

*Count as of January 13, 1992 computer run that included all participants.

APPENDIX A

1991-92 COUNT OF PROGRAM PARTICIPANTS*

PROGRAM: **Total Migrant**

COUNT OF PROGRAM PARTICIPANTS

Building	K	1	2	3	4	5	6	Total
E. Baillie	1	2	2	2	0	0	1	8
Coulter	2	2	3	1	4	5	0	17
Emerson	6	6	6	5	5	2	3	33
Fuerbringer	1	3	1	1	0	1	2	9
N. Haley	6	6	3	3	5	5	1	29
Handley	0	0	0	0	2	0	1	3
Heavenrich	2	5	2	0	2	2	0	13
Herig	4	6	3	4	0	2	2	21
Houghton	1	5	1	5	6	3	2	23
Jerome	3	5	6	3	1	2	3	23
Jones	2	0	1	1	3	4	5	16
Kempton	1	0	0	1	0	0	0	2
Longfellow	5	4	5	8	6	10	2	40
Longstreet	2	3	2	0	1	1	0	9
J. Loomis	4	7	6	8	4	1	7	37
Merrill Park	3	3	8	4	2	2	5	27
C. Miller	2	1	5	2	4	4	6	24
J. Moore	3	5	6	2	4	2	2	24
Morley	1	0	0	1	0	1	0	3
J. Rouse	11	11	13	9	8	11	4	67
Salina	1	1	2	0	0	2	3	9
Stone	4	7	8	5	5	4	4	37
Webber Ele.	15	11	11	9	6	8	7	67
Zilwaukee	0	0	0	2	0	1	0	3
TOTAL	80	93	94	76	68	73	60	544

*Count as of November 26, 1991 computer run that included all participants.

APPENDIX A

1991-92 COUNT OF PROGRAM PARTICIPANTS*

PROGRAM: **Total Migrant**

COUNT OF PROGRAM PARTICIPANTS

Building	7	8	9	Total
Central Junior	6	8	6	20
North Intermediate	14	12	19	45
South Intermediate	17	13	17	47
Webber Junior	25	29	8	62
TOTAL	62	62	50	174

*Count as of November 26, 1991 computer run that included all participants.

1991-92 COUNT OF PROGRAM PARTICIPANTS*

PROGRAM: **Total Migrant**

COUNT OF PROGRAM PARTICIPANTS

Building	10	11	12	Total
Arthur Hill	36	45	26	107
Saginaw High	10	13	7	30
TOTAL	46	58	33	137

*Count as of November 26, 1991 computer run that included all participants.

APPENDIX B

IDENTIFICATION AND ELIGIBILITY PROCEDURES FOR STATE BILINGUAL AND MIGRANT STUDENTS

State Bilingual

The first step in the procedures is that of a student identification. Potential students are identified by means of a Home Language Survey. The survey is designed to determine if: 1) the native or first language is other than English or; 2) a language other than English is regularly used in the student's home or environment. Students in grades K-2 eligible for the program on the basis of the Home Language Survey and parental permission. Students in grades 3-12 go through a more extensive eligibility system which is described below.

In addition to the Home Language Survey, students in grades 3-12 are also tested on one or two instruments for program eligibility. For students who are new or have never been in the Bilingual program, the first is a test of oral English proficiency. In Saginaw, the Language Assessment Battery (LAB) test is used for this purpose and is usually administered in the fall of each year. If the student scores at or below the 40th percentile, then the student is eligible. However, if the student scores above the 40th percentile, then the student is given an English reading achievement test. The California Achievement Test (CAT) is used for this purpose. If the student scores at or below the 40th percentile, then the student is eligible for the program. Finally, parental permission is needed for program participation.

APPENDIX B

Students in grades 3-12 who were in the Bilingual program the previous year go through a somewhat different eligibility procedure. These students are subject to a program exit criterion which is based on the student's post-test English reading achievement score. If the student's post-test score remains at or below the 40th percentile, the student is ineligible. However, eligibility is based on either the oral English language proficiency test score or the English reading achievement test score. In addition, a score that is used for eligibility is to be the result of a test administration no earlier than the spring of the preceding school year. It is, therefore, possible for a student to exceed the 40th percentile on the reading achievement test and become eligible when retested with the oral English proficiency test. The final eligibility requirement is that students:

> ... shall be enrolled in the Bilingual instruction program for three years or until the child achieves a level of proficiency in English language skills sufficient to receive an equal educational opportunity in the regular school program, whichever comes first.[1]

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[1] Administrator's Manual for Bilingual Education Programs in Michigan 1979-80 Bilingual Education Office, Michigan Department of Education, February, 1979, Appendix A, page 4.

APPENDIX B

Migrant

Eligibility for the Migrant program is based solely on whether a student is one of three Migrant designations. The district does, however, attempt to serve those students with the greatest academic need, and nearly all Migrant students scored at or below the 40th percentile on an English reading achievement test.

The three designations of Migrant students are:

1) Interstate: Student has moved within the last year across state boundaries.

2) Intrastate: Student has moved within the last year across school district boundaries within the state.

3) Five Year Settled Out: Student has remained within a school district for at least five years.

APPENDIX C

SCHOOL DISTRICT OF THE CITY OF SAGINAW

DEPARTMENT OF EVALUATION, TESTING & RESEARCH

TO: Raul A. Rio

FROM: Richard N. Claus

RE: CAT Objectives Mastery Standard for State Bilingual/Migrant Program

DATE: September 18, 1990

As per our agreement yesterday at you staff meeting, the State Bilingual/Migrant Program will equal or exceed the mastery levels given below on selected CAT objectives as part of the data reported internally.

CAT Reading Objectives	Percentage Mastery By Grade					
	1	2	3	4	5	6
33/36	27	56	60	31	48	48
37	26	59	63	34	50	58
39				28	36	31

RNC/ms

CC: Barry E. Quimper

TABLE D.1. MEAN NORMAL CURVE EQUIVALENT GAIN BY BUILDING AND GRADE FOR ALL 1-6 STATE BILINGUAL PUPILS IN TOTAL READING (BASIC SKILLS) BASED ON APRIL-MAY, 1991 PRE-TESTING AND APRIL-MAY, 1992 POST-TESTING ON CAT (SPRING TO SPRING)

BUILDING	GRADE 1				GRADE 2				GRADE 3				GRADE 4				GRADE 5				GRADE 6			
	Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents			
	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss
Baillio	1	29.0	40.0	11.0	2	35.5	29.5	-6.0	1	36.0	30.0	-6.0	0	-	-	-	1	41.0	26.0	-15.0	1	38.0	32.0	-6.0
Coulter	2	29.0	40.0	11.0	4	36.5	49.2	12.7	2	40.0	45.0	5.0	1	38.0	36.0	-2.0	0	-	-	-	0	-	-	-
Emerson	10	44.8	48.0	3.2	6	37.0	39.8	2.8	0	-	-	-	2	47.5	34.0	-13.5	1	44.0	43.0	-1.0	3	29.0	29.6	0.6
Fuerbringer	9	7.0	44.0	37.0	1	25.0	41.0	16.0	1	36.0	46.0	10.0	0	-	-	-	1	46.0	52.0	6.0	0	-	-	-
Hallo Haley	7	33.4	61.8	28.4	4	54.7	62.2	7.5	2	45.5	42.0	-3.5	2	51.0	41.0	-10.0	0	-	-	-	1	53.0	53.0	0.0
Handley	7	69.5	81.0	11.4	2	81.0	84.0	3.0	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-
Havenwich	3	30.6	33.0	2.3	1	25.0	1.0	-24.0	0	-	-	-	0	-	-	-	0	-	-	-	1	27.0	33.0	6.0
Herig	10	55.8	46.8	-9.0	12	51.3	46.5	-4.7	1	30.0	44.0	14.0	0	-	-	-	0	-	-	-	1	37.0	45.0	8.0
Houghton	4	52.5	30.2	-22.3	4	40.2	33.7	-6.5	0	-	-	-	0	-	-	-	1	34.0	46.0	12.0	0	-	-	-
Jerome	9	42.4	48.5	6.1	8	39.5	53.2	13.7	0	-	-	-	0	-	-	-	0	-	-	-	1	30.0	25.0	-5.0
Jones	0	-	-	-	0	-	-	-	0	-	-	-	1	31.0	27.0	-4.0	0	-	-	-	0	-	-	-
Kempton	4	51.0	56.2	5.2	2	63.5	67.0	3.5	1	65.0	60.0	-5.0	0	-	-	-	2	45.0	48.0	3.0	0	-	-	-
Longfellow	11	35.2	36.8	1.6	10	31.8	34.9	3.1	5	36.8	43.6	6.8	0	-	-	-	0	-	-	-	1	47.0	46.0	-1.0
Longstreet	2	38.5	46.5	8.0	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-
J. Loomis	11	68.1	45.3	-18.8	2	54.5	52.5	-2.0	0	-	-	-	0	-	-	-	0	-	-	-	1	27.0	17.0	-10.0
Merrill Park	9	40.0	31.3	-8.7	11	46.4	41.1	-5.3	1	34.0	28.0	-6.0	0	-	-	-	1	42.0	50.0	8.0	0	-	-	-
Chester Miller	10	49.5	45.5	-4.0	9	46.5	57.7	11.2	0	-	-	-	0	-	-	-	0	-	-	-	2	38.0	35.0	-3.0
John Moore	11	45.8	42.4	-3.4	9	53.6	52.2	-1.4	0	-	-	-	0	-	-	-	1	42.0	32.0	-10.0	0	-	-	-
Morley	1	32.0	44.0	12.0	1	38.0	39.0	1.0	0	-	-	-	1	38.0	35.0	-3.0	0	-	-	-	0	-	-	-
J. Rouse	16	43.4	43.1	-0.3	10	41.3	45.8	4.5	2	33.5	32.0	-1.5	1	41.0	42.0	1.0	4	39.0	38.5	-0.5	4	42.7	43.5	0.8
Saline	2	15.0	13.5	-1.5	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-	1	35.0	37.0	2.0
Stone	21	44.0	45.4	1.4	6	31.6	33.5	1.9	1	36.0	44.0	8.0	3	34.3	35.6	1.3	2	34.5	40.5	6.0	1	41.0	42.0	1.0
Webber Ele.	10	57.0	43.2	-13.8	10	48.4	51.5	3.1	4	34.2	39.2	5.0	2	37.5	33.5	-4.0	2	33.0	36.0	3.0	1	39.0	37.0	-2.0
Zilwaukee	2	71.0	35.0	-36.0	1	37.0	70.0	33.0	0	-	-	-	1	39.0	32.0	-7.0	0	-	-	-	1	37.0	42.0	5.0
TOTAL	172	46.6	44.7	-1.9	115	44.2	46.8	2.6	21	37.9	40.8	2.9	14	40.1	35.4	-4.7	16	39.3	40.7	1.4	20	37.2	37.1	-0.1

BEST COPY AVAILABLE

TABLE D.2. MEAN NORMAL CURVE EQUIVALENT GAIN BY BUILDING AND GRADE FOR ALL 1-6 STATE BILINGUAL PUPILS IN READING COMPREHENSION (ADVANCED SKILLS) BASED ON APRIL-MAY, 1991 PRE-TESTING AND APRIL-MAY, 1992 POST-TESTING ON CAT (SPRING TO SPRING)

BUILDING	GRADE 1				GRADE 2				GRADE 3				GRADE 4				GRADE 5				GRADE 6			
	Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents			
	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss
Baillie	1	22.0	34.0	12.0	2	30.5	26.5	-4.0	1	36.0	23.0	-13.0	0	-	-	-	1	46.0	34.0	-12.0	1	37.0	40.0	3.0
Coulter	2	25.5	41.5	16.0	4	38.0	49.7	11.7	2	43.0	37.0	-6.0	1	48.0	38.0	-10.0	0	-	-	-	0	-	-	-
Emerson	10	41.9	53.8	11.9	6	42.1	38.5	-3.6	0	-	-	-	2	52.5	35.5	-17.0	1	45.0	41.0	-4.0	3	32.6	29.6	-3.0
Fourbringer	9	1.0	45.0	44.0	1	30.0	60.0	30.0	1	46.0	52.0	6.0	0	-	-	-	1	47.0	53.0	6.0	0	-	-	-
Hallo Haley	7	31.7	62.2	30.5	4	48.7	62.5	13.8	2	56.5	43.5	-13.0	2	57.5	42.0	-15.5	0	-	-	-	1	66.0	56.0	-10.0
Handley	7	68.5	78.5	10.0	2	78.0	85.0	7.0	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-
Heavenrich	3	35.6	32.6	-3.0	1	38.0	13.0	-25.0	0	-	-	-	0	-	-	-	0	-	-	-	1	32.0	40.0	8.0
Herig	10	50.3	49.8	-0.5	12	51.9	47.7	-4.2	1	29.0	48.0	19.0	0	-	-	-	0	-	-	-	1	39.0	45.0	6.0
Houghton	4	50.0	42.2	-8.8	4	43.2	44.0	0.8	0	-	-	-	0	-	-	-	1	35.0	42.0	7.0	0	-	-	-
Jerome	9	43.3	47.1	3.8	8	40.8	51.0	10.2	0	-	-	-	0	-	-	-	0	-	-	-	1	32.0	24.0	-8.0
Jones	0	-	-	-	0	-	-	-	0	-	-	-	1	25.0	34.0	9.0	0	-	-	-	0	-	-	-
Kempton	4	53.0	55.0	2.0	2	62.0	61.5	-0.5	1	55.0	60.0	5.0	0	-	-	-	2	51.0	48.5	-2.5	0	-	-	-
Longfellow	11	33.6	38.5	4.9	10	35.2	35.8	0.6	5	45.4	42.6	-2.8	0	-	-	-	0	-	-	-	1	55.0	50.0	-5.0
Longstreet	2	45.5	45.0	-0.5	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-
J. Loomis	11	68.3	47.8	-20.5	2	53.5	55.0	1.5	0	-	-	-	0	-	-	-	0	-	-	-	1	32.0	13.0	-19.0
Merrill Park	9	41.5	32.2	-9.3	11	48.0	44.7	-3.3	1	44.0	28.0	-16.0	0	0	0	0	1	48.0	51.0	3.0	0	-	-	-
Chester Miller	10	44.2	47.2	3.0	9	47.3	57.7	10.4	0	-	-	-	0	-	-	-	0	-	-	-	2	43.0	39.0	-4.0
John Moore	11	47.4	43.5	-3.9	9	54.0	54.2	0.2	0	-	-	-	0	-	-	-	1	44.0	32.0	-12.0	0	-	-	-
Morley	1	45.0	38.0	-7.0	1	52.0	40.0	-12.0	0	-	-	-	1	42.0	35.0	-7.0	0	-	-	-	0	-	-	-
J. Nasso	16	38.1	39.3	1.1	10	39.2	44.2	5.0	2	32.5	32.5	0.0	1	48.0	41.0	-7.0	4	40.7	40.5	-0.2	4	50.5	46.0	-4.5
Salina	2	26.5	21.5	-5.0	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-	1	36.0	35.0	-1.0
Stone	21	43.2	43.8	0.6	6	36.3	33.8	-2.5	1	34.0	40.0	6.0	3	45.0	38.6	-6.4	2	35.5	40.5	5.0	1	47.0	45.0	-2.0
Webber Ele.	10	55.6	45.1	-10.5	10	48.9	55.5	6.6	4	37.5	42.5	5.0	2	43.0	37.5	-5.5	2	34.5	39.5	5.0	1	42.0	44.0	2.0
Zitouskee	2	71.5	35.5	-36.0	1	38.0	77.0	39.0	0	-	-	-	1	42.0	25.0	-17.0	0	-	-	-	1	34.0	42.0	8.0
TOTAL	172	45.5	45.5	0.0	115	45.4	48.1	2.7	21	42.1	41.2	-0.9	14	46.1	37.0	-9.1	16	41.8	42.0	0.2	20	41.9	39.2	-2.7

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TABLE D.3. MEAN NORMAL CURVE EQUIVALENT GAIN BY BUILDING AND GRADE FOR ALL 1-6 STATE BILINGUAL PUPILS IN TOTAL MATH (BASIC SKILLS) BASED ON APRIL-MAY, 1991 PRE-TESTING AND APRIL-MAY, 1992 POST-TESTING ON CAT (SPRING TO SPRING)

BUILDING	GRADE 1 Normal Curve Equivalents				GRADE 2 Normal Curve Equivalents				GRADE 3 Normal Curve Equivalents				GRADE 4 Normal Curve Equivalents				GRADE 5 Normal Curve Equivalents				GRADE 6 Normal Curve Equivalents			
	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss
Baillie	0	-	-	-	2	34.0	34.0	0.0	1	56.0	33.0	-23.0	0	-	-	-	1	53.0	38.0	-15.0	1	53.0	55.0	2.0
Coulter	0	-	-	-	3	50.6	63.3	12.7	2	50.6	63.3	12.7	1	56.0	31.0	-25.0	0	-	-	-	0	-	-	-
Emerson	0	-	-	-	2	47.2	31.0	-6.2	0	-	-	-	2	38.0	32.5	-5.5	1	83.0	56.0	-27.0	3	37.3	31.6	-5.7
Feurbringer	0	-	-	-	1	44.0	48.0	4.0	1	36.0	40.0	4.0	0	-	-	-	1	67.0	77.0	10.0	0	-	-	-
Hallo Haley	0	-	-	-	4	76.2	65.5	-10.7	2	54.0	58.5	4.5	2	67.0	46.0	-21.0	0	-	-	-	1	78.0	75.0	-3.0
Headley	0	-	-	-	2	85.5	68.5	-17.0	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-
Hoovenrich	0	-	-	-	1	1.0	10.0	9.0	0	-	-	-	0	-	-	-	0	-	-	-	1	61.0	68.0	7.0
Horig	0	-	-	-	12	65.6	51.1	-14.5	1	55.0	59.0	4.0	0	-	-	-	0	-	-	-	1	37.0	47.0	10.0
Houghton	0	-	-	-	4	55.7	69.0	13.3	0	-	-	-	0	-	-	-	1	10.0	28.0	18.0	0	-	-	-
Jerome	0	-	-	-	8	46.8	53.8	7.0	0	-	-	-	0	-	-	-	0	-	-	-	1	55.0	45.0	-10.0
Jones	0	-	-	-	0	-	-	-	0	-	-	-	1	45.0	34.0	-11.0	0	-	-	-	0	-	-	-
Kempton	0	-	-	-	2	88.5	57.0	-31.5	1	62.0	56.0	-6.0	0	-	-	-	2	55.0	47.0	-8.0	0	-	-	-
Longfellow	0	-	-	-	10	50.5	30.0	-20.5	5	54.0	46.0	-8.0	0	-	-	-	0	-	-	-	1	30.0	57.0	27.0
Longstreet	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-
J. Loomis	0	-	-	-	2	71.0	78.5	7.5	0	-	-	-	0	-	-	-	0	-	-	-	1	45.0	35.0	-10.0
Merrill Park	0	-	-	-	11	54.0	46.6	-7.4	1	48.0	44.0	-4.0	0	-	-	-	1	36.0	32.0	-4.0	0	-	-	-
Chester Miller	0	-	-	-	9	48.1	58.5	10.4	0	-	-	-	0	-	-	-	0	-	-	-	2	57.0	48.5	-8.5
John Moore	0	-	-	-	9	66.3	59.0	-7.3	0	-	-	-	0	-	-	-	1	41.0	28.0	-13.0	0	-	-	-
Morley	0	-	-	-	1	42.0	50.0	8.0	0	-	-	-	1	46.0	44.0	-2.0	0	-	-	-	0	-	-	-
J. Rouse	0	-	-	-	10	62.1	65.2	3.1	2	32.5	38.5	6.0	1	53.0	47.0	-6.0	4	56.2	58.7	2.5	3	57.6	58.6	1.0
Salina	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-	1	72.0	90.0	18.0
Stone	0	-	-	-	6	34.6	43.5	8.9	1	66.0	54.0	-12.0	3	37.6	42.3	4.7	2	40.5	62.0	21.5	1	50.0	56.0	6.0
Webber Ele.	0	-	-	-	10	58.2	47.3	-10.9	4	51.0	44.5	-6.5	2	55.5	46.0	-9.5	2	30.5	36.0	5.5	1	46.0	53.0	7.0
Zilwaukee	0	-	-	-	1	53.0	66.0	13.0	0	-	-	-	1	71.0	38.0	-33.0	0	-	-	-	0	-	-	-
TOTAL	0	-	-	-	114	55.9	51.4	-4.5	21	51.5	47.7	-3.8	14	50.3	40.7	-9.6	16	47.9	49.0	1.1	18	51.4	52.7	1.3

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TABLE D.4. MEAN NORMAL CURVE EQUIVALENT GAIN BY BUILDING AND GRADE FOR ALL 1-6 STATE BILINGUAL PUPILS IN MATHEMATICS CONCEPTS AND APPLICATIONS (ADVANCED SKILLS) BASED ON APRIL-MAY, 1991 PRE-TESTING AND APRIL-MAY, 1992 POST-TESTING ON CAT (SPRING TO SPRING)

BUILDING	GRADE 1 Normal Curve Equivalents				GRADE 2 Normal Curve Equivalents				GRADE 3 Normal Curve Equivalents				GRADE 4 Normal Curve Equivalents				GRADE 5 Normal Curve Equivalents				GRADE 6 Normal Curve Equivalents			
	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss
Baillie	1	41.0	39.0	-2.0	2	30.5	36.0	5.5	1	49.0	34.0	-15.0	0	-	-	-	1	41.0	41.0	0.0	1	35.0	42.0	7.0
Coulter	2	25.5	58.5	33.0	3	46.6	64.6	18.0	2	55.5	55.5	0.0	1	50.0	26.0	-24.0	0	-	-	-	0	-	-	-
Emerson	10	54.9	65.4	10.5	2	39.0	33.8	-5.2	0	-	-	-	2	42.5	45.5	3.0	1	68.0	55.0	-13.0	3	34.0	30.6	-3.4
Fuerbringer	10	54.3	46.7	-7.6	1	39.0	39.0	0.0	1	30.0	44.0	14.0	0	-	-	-	1	68.0	70.0	2.0	0	-	-	-
Hallie Haley	7	42.5	61.7	19.2	4	79.7	66.5	-13.2	2	54.0	64.0	10.0	2	61.0	38.5	-22.5	0	-	-	-	1	64.0	76.0	12.0
Handley	11	60.4	73.5	13.1	2	87.5	68.0	-9.5	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-
Hoevenrich	2	29.5	54.5	25.0	1	13.0	7..	..0	0	-	-	-	0	-	-	-	0	-	-	-	1	55.0	64.0	9.0
Herig	10	52.5	67.8	15.3	12	68.0	56..		1	46.0	56.0	10.0	0	-	-	-	0	-	-	-	1	44.0	41.0	-3.0
Houghton	4	51.5	49.2	-2.3	4	63.0	72.7		0	-	-	-	0	-	-	-	1	25.0	24.0	-1.0	0	-	-	-
Jerome	9	38.5	57.4	18.9	8	50.7	56.3		0	-	-	-	0	-	-	-	0	-	-	-	1	53.0	48.0	-5.0
Jones	0	-	-	-	0	-	-	-	0	-	-	-	1	41.0	31.0	-10.0	0	-	-	-	0	-	-	-
Kempton	4	57.0	78.0	21.0	2	93.0	65.0	-28.0	1	64.0	60.0	-4.0	0	-	-	-	2	55.5	50.0	-5.5	0	-	-	-
Longfellow	11	35.3	50.7	15.4	10	52.7	32.0	-20.7	5	50.2	49.8	-0.4	0	-	-	-	0	-	-	-	1	24.0	58.0	34.0
Longstreet	2	22.0	77.5	55.5	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-
J. Loomis	11	67.6	53.0	-14.6	2	81.5	78.5	-3.0	0	-	-	-	0	-	-	-	0	-	-	-	1	40.0	35.0	-5.0
Morrill Park	9	41.6	52.2	13.6	11	50.4	47.8	-2.6	1	49.0	53.0	4.0	0	-	-	-	1	32.0	32.0	0.0	0	-	-	-
Chester Miller	10	45.8	60.0	14.2	9	43.8	53.7	9.9	0	-	-	-	0	-	-	-	0	-	-	-	2	50.0	51.5	1.5
John Moore	11	54.7	59.3	4.6	9	71.5	58.0	-13.5	0	-	-	-	0	-	-	-	1	37.0	24.0	-13.0	0	-	-	-
Morley	1	35.0	13.0	-22.0	1	50.0	53.0	3.0	0	-	-	-	1	47.0	50.0	3.0	0	-	-	-	0	-	-	-
J. Reese	17	35.2	53.5	18.3	10	60.7	67.4	6.7	2	40.0	39.0	-1.0	1	56.0	48.0	-8.0	4	53.7	58.7	5.0	3	54.3	46.3	-8.0
Salina	2	16.5	41.5	25.0	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-	1	62.0	52.0	-10.0
Stone	21	49.4	46.9	-2.5	6	40.6	39.6	-1.0	1	64.0	56.0	-8.0	3	34.6	41.6	7.0	2	39.5	47.5	8.0	1	47.0	45.0	-2.0
Webber Ele.	10	52.8	51.7	-1.1	10	49.2	50.3	1.1	4	48.0	44.0	-4.0	2	47.0	42.0	-5.0	2	31.5	38.0	6.5	1	36.0	45.0	9.0
Zitkoskee	2	85.0	51.5	-33.5	1	50.0	72.0	22.0	0	-	-	-	1	53.0	37.0	-16.0	0	-	-	-	0	-	-	-
TOTAL	177	48.1	56.4	8.3	114	55.8	52.7	-3.1	21	49.7	49.7	0.0	14	46.5	40.6	-5.9	16	46.1	47.0	0.9	18	45.8	46.6	0.8

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APPENDIX D

TABLE D.5. MEAN NORMAL CURVE EQUIVALENT GAIN BY BUILDING AND GRADE FOR ALL 7-9 STATE BILINGUAL PUPILS IN TOTAL READING (BASIC SKILLS) AND READING COMPREHENSION (ADVANCED SKILLS) BASED ON APRIL-MAY, 1991 PRE-TESTING AND APRIL-MAY, 1992 POST-TESTING ON CAT (SPRING TO SPRING).

Subject/ School	GRADE 7 Normal Curve Equivalents				GRADE 8 Normal Curve Equivalents				GRADE 9 Normal Curve Equivalents			
	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss
TOTAL MATHEMATICS												
Central	3	20.6	18.6	-2.0	0	-	-	-	0	-	-	-
North	0	-	-	-	4	9.5	19.0	9.5	5	38.2	37.0	-1.2
South	0	-	-	-	4	38.0	36.5	-1.5	5	37.6	39.6	2.0
Webber	4	21.2	23.2	2.0	2	26.0	25.0	-1.0	4	26.5	26.2	-0.3
System	7	21.0	21.2	0.2	10	24.2	27.2	3.0	14	34.6	34.8	0.2
CONCEPTS AND APPLICATIONS												
Central	3	22.6	25.0	2.4	0	-	-	-	0	-	-	-
North	0	-	-	-	4	20.5	19.5	-1.0	5	49.0	39.8	-9.2
South	0	-	-	-	4	43.2	39.0	-4.2	5	37.4	41.6	4.2
Webber	4	23.2	17.7	-5.5	2	20.0	25.5	5.5	4	29.0	25.0	-4.0
System	7	23.0	20.8	-2.1	10	29.5	28.5	-1.0	14	39.1	36.2	-2.9

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TABLE D.6. MEAN NORMAL CURVE EQUIVALENT GAIN BY BUILDING AND GRADE FOR ALL 7-9 STATE BILINGUAL PUPILS IN TOTAL MATHEMATICS (BASIC SKILLS) AND MATHEMATICS CONCEPTS AND APPLICATION (ADVANCED SKILLS) BASED ON APRIL-MAY, 1991 PRE-TESTING AND APRIL-MAY, 1992 POST-TESTING ON CAT (SPRING TO SPRING).

Subject/ School	GRADE 7 Normal Curve Equivalents				GRADE 8 Normal Curve Equivalents				GRADE 9 Normal Curve Equivalents			
	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss
TOTAL MATHEMATICS												
Central	3	40.3	30.0	-10.3	0	-	-	-	1	40.0	46.0	6.0
North	0	-	-	-	4	36.7	32.5	-4.2	5	49.4	48.2	-1.2
South	1	38.0	36.0	-2.0	4	46.5	44.5	-2.0	3	41.6	46.3	4.7
Webber	4	29.2	18.2	-11.0	2	55.0	21.0	-34.0	4	29.5	35.2	5.7
System	8	34.5	24.8	-9.7	10	43.1	35.0	-8.1	13	40.7	43.2	2.4
CONCEPTS AND APPLICATIONS												
Central	3	33.6	30.0	-3.6	0	-	-	-	1	39.0	40.0	1.0
North	0	-	-	-	4	27.0	22.0	-5.0	5	48.2	44.6	-3.6
South	1	46.0	49.0	3.0	4	40.2	39.5	-0.7	3	41.7	45.0	3.3
Webber	4	32.5	22.7	-9.8	2	37.0	21.0	-16.0	4	33.0	31.0	-2.0
System	8	34.6	28.7	-5.9	10	34.3	28.8	-5.5	13	41.3	40.1	-1.2

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TABLE D.7. MEAN NORMAL CURVE EQUIVALENT GAIN BY BUILDING AND GRADE FOR ALL 10-12 STATE BILINGUAL PUPILS IN TOTAL READING (BASIC SKILLS) AND READING COMPREHENSION (ADVANCED SKILLS) BASED ON APRIL-MAY, 1991 PRE-TESTING AND APRIL-MAY, 1992 POST-TESTING ON CAT (SPRING TO SPRING).

Subject/ School	GRADE 10 Normal Curve Equivalents				GRADE 11 Normal Curve Equivalents				GRADE 12 Normal Curve Equivalents			
	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss
TOTAL MATHEMATICS												
Arthur Hill	5	43.2	41.8	-1.4	3	23.0	39.3	16.3	4	39.0	30.0	-9.0
Saginaw High	0	-	-	-	0	-	-	-	0	-	-	-
System	5	43.2	41.8	-1.4	3	23.0	39.3	16.3	4	39.0	30.0	-9.0
CONCEPTS AND APPLICATIONS												
Arthur Hill	5	49.6	48.2	-1.4	3	31.3	45.0	13.7	4	41.7	26.2	-15.5
Saginaw High	0	-	-	-	0	-	-	-	0	-	-	-
System	5	49.6	48.2	-1.4	3	31.3	45.0	13.7	4	41.7	26.2	-15.5

APPENDIX D

TABLE D.8. MEAN NORMAL CURVE EQUIVALENT GAIN BY BUILDING AND GRADE FOR ALL 10-12 STATE BILINGUAL PUPILS IN TOTAL MATHEMATICS (BASIC SKILLS) AND MATHEMATICS CONCEPTS AND APPLICATION (ADVANCED SKILLS) BASED ON APRIL-MAY, 1991 PRE-TESTING AND APRIL-MAY, 1992 POST-TESTING ON CAT (SPRING TO SPRING).

Subject/ School	GRADE 10 Normal Curve Equivalents				GRADE 11 Normal Curve Equivalents				GRADE 12 Normal Curve Equivalents			
	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss
TOTAL MATHEMATICS												
Arthur Hill	8	47.2	51.5	4.3	4	46.5	43.0	-3.5	4	48.5	48.7	0.2
Saginaw High	0	-	-	-	0	-	-	-	0	-	-	-
System	8	47.2	51.5	4.3	4	46.5	43.0	-3.5	4	48.5	48.7	0.2
CONCEPTS AND APPLICATIONS												
Arthur Hill	8	51.0	48.3	-2.7	4	47.0	43.0	-4.0	4	43.7	43.7	0.0
Saginaw High	0	-	-	-	0	-	-	-	0	-	-	-
System	8	51.0	48.3	-2.7	4	47.0	43.0	-4.0	4	43.7	43.7	0.0

TABLE D.9. MEAN NORMAL CURVE EQUIVALENT GAIN BY BUILDING AND GRADE FOR ALL 1-6 MIGRANT PUPILS IN TOTAL READING (BASIC SKILLS) BASED ON APRIL-MAY, 1991 PRE-TESTING AND APRIL-MAY, 1992 POST-TESTING ON CAT (SPRING TO SPRING)

BUILDING	GRADE 1				GRADE 2				GRADE 3				GRADE 4				GRADE 5				GRADE 6			
	Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents			
	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss
Bailie	2	45.5	36.5	-9.0	2	52.0	61.5	9.5	2	40.0	37.0	-3.0	0	-	-	-	0	-	-	-	1	48.0	47.0	-1.0
Coulter	2	28.0	52.0	24.0	2	32.5	51.5	19.0	1	57.0	66.0	9.0	4	49.2	39.2	-10.0	3	50.6	52.0	1.4	2	41.0	46.0	5.0
Emerson	4	43.5	39.5	-4.0	6	36.1	45.1	9.0	1	22.0	42.0	20.0	5	49.6	40.0	-9.6	1	37.0	29.0	-8.0	5	37.4	38.2	0.8
Fuerbringer	2	37.0	14.0	-23.0	1	60.0	48.0	-12.0	1	47.0	46.0	-1.0	0	-	-	-	1	46.0	52.0	6.0	0	-	-	-
Helle Haley	6	37.1	71.5	34.4	1	36.0	41.0	5.0	2	48.0	44.5	-3.5	4	44.2	40.7	-3.5	3	35.3	26.7	-7.6	1	35.0	29.0	-6.0
Handley	0	-	-	-	0	-	-	-	0	-	-	-	2	73.5	67.0	-6.5	0	-	-	-	0	-	-	-
Heavenrich	4	23.2	34.2	11.0	2	65.5	47.0	-18.5	0	-	-	-	2	36.0	32.0	-4.0	1	10.0	20.0	10.0	0	-	-	-
Herig	5	37.4	44.2	6.8	3	58.3	45.3	-13.0	4	47.5	50.0	2.5	0	-	-	-	2	41.0	34.0	-7.0	0	-	-	-
Houghton	3	58.6	44.0	-14.6	1	23.0	39.0	16.0	2	57.5	48.0	-9.5	2	45.0	45.0	0.0	3	39.0	53.3	14.3	0	-	-	-
Jerome	5	42.4	53.6	11.2	3	41.0	42.6	1.6	2	52.5	50.5	-2.0	1	55.0	52.0	-3.0	3	42.3	43.3	1.0	3	36.3	34.3	-2.0
Jones	0	-	-	-	0	-	-	-	1	42.0	38.2	-4.0	1	35.0	35.0	0.0	2	39.0	37.5	-2.5	3	28.3	30.3	2.0
Kempton	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-
Longfellow	2	55.5	41.0	-14.5	3	34.6	53.0	18.4	6	33.8	40.8	7.0	3	42.0	40.0	-2.0	10	40.6	41.5	0.9	2	48.5	56.0	7.5
Longstreet	3	47.0	47.6	0.6	1	45.0	36.0	-9.0	1	7.0	36.0	29.0	1	37.0	29.0	-8.0	1	28.0	29.0	1.0	0	-	-	-
J. Loomis	8	51.3	40.8	-10.5	5	55.4	56.4	1.0	6	34.5	34.3	-0.2	4	52.2	53.7	1.5	1	53.0	68.0	15.0	6	29.0	28.0	-1.0
Merrill Park	3	41.0	30.6	-10.4	3	49.0	37.6	-11.4	3	46.3	51.3	5.0	1	40.0	52.0	12.0	0	-	-	-	4	53.5	51.0	-2.5
Chester Miller	1	20.0	44.0	24.0	5	33.8	48.8	15.0	2	58.0	74.5	16.5	3	56.0	46.0	-10.0	3	49.6	44.0	-5.6	4	42.2	41.0	-1.2
John Moore	3	16.3	41.6	25.3	5	34.4	39.8	5.4	2	36.0	49.0	13.0	2	42.5	46.5	4.0	1	48.0	39.0	-9.0	0	-	-	-
Morley	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-	1	28.0	41.0	13.0	0	-	-	-
J. Rouse	6	45.1	41.0	-4.1	10	44.8	40.1	-4.7	5	51.8	49.8	-2.0	7	56.7	46.4	-10.2	9	41.5	34.6	-6.9	4	49.7	45.5	-4.2
Salina	1	10.0	20.0	10.0	0	-	-	-	1	10.0	10.0	0.0	0	-	-	-	0	-	-	-	2	41.0	33.5	-7.5
Stone	8	35.1	40.5	5.4	6	35.3	34.0	-1.3	4	24.7	25.7	1.0	5	40.8	38.4	-2.4	4	46.2	44.5	-1.7	4	53.0	50.7	-2.3
Webber Ele.	8	48.0	38.7	-9.2	6	50.6	47.8	-2.8	7	36.1	36.1	0.0	3	50.6	43.0	-7.6	6	38.8	39.8	1.0	4	48.5	57.2	8.7
Zilwaukee	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-
TOTAL	76	40.6	42.9	2.3	65	43.2	44.7	1.5	53	39.9	42.5	2.6	50	48.8	43.7	-5.1	55	41.0	40.4	-0.6	45	41.9	41.8	-0.1

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TABLE D.10. MEAN NORMAL CURVE EQUIVALENT GAIN BY BUILDING AND GRADE FOR ALL 1-6 MIGRANT PUPILS IN READING COMPREHENSION (ADVANCED SKILLS) BASED ON APRIL-MAY, 1991 PRE-TESTING AND APRIL-MAY, 1992 POST TESTING ON CAT (SPRING TO SPRING)

BUILDING	GRADE 1 Normal Curve Equivalents				GRADE 2 Normal Curve Equivalents				GRADE 3 Normal Curve Equivalents				GRADE 4 Normal Curve Equivalents				GRADE 5 Normal Curve Equivalents				GRADE 6 Normal Curve Equivalents			
	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss
Baillie	2	37.5	32.0	-5.5	2	55.5	68.5	13.0	2	48.0	39.0	-9.0	0	-	-	-	0	-	-	-	1	51.0	56.0	5.0
Coulter	2	32.5	47.0	14.5	2	38.0	47.0	9.0	1	55.0	52.0	-3.0	4	56.2	45.0	-11.2	3	48.3	54.3	6.0	2	44.5	47.0	2.5
Emerson	4	41.0	42.5	1.5	6	39.8	42.6	2.8	1	34.0	45.0	11.0	5	52.8	44.4	-8.4	1	36.0	32.0	-4.0	5	39.8	36.4	-3.4
Feerbringer	2	38.5	25.5	-13.0	1	60.0	45.0	-15.0	1	52.0	53.0	1.0	0	-	-	-	1	47.0	53.0	6.0	0	-	-	-
Belle Haley	6	36.1	69.3	33.2	1	44.0	46.0	2.0	2	50.5	44.5	-6.0	4	48.2	43.7	-4.5	3	39.0	32.3	-6.7	1	38.0	30.0	-8.0
Handley	0	-	-	-	0	-	-	-	0	-	-	-	2	69.5	64.0	-5.5	0	-	-	-	0	-	-	-
Heavenrich	4	25.0	35.2	10.2	2	69.5	42.0	-27.5	0	-	-	-	2	33.0	29.0	-4.0	1	25.0	27.0	2.0	0	-	-	-
Herig	5	37.2	46.0	8.8	3	66.0	48.3	-17.7	4	53.0	55.0	2.0	0	-	-	-	2	51.5	47.0	-4.5	0	-	-	-
Houghton	3	53.7	53.0	-0.7	1	19.0	44.0	25.0	2	68.5	50.0	-18.5	2	42.0	48.0	6.0	3	40.0	52.3	12.3	0	-	-	-
Jerome	5	44.6	52.8	8.2	3	43.3	40.6	-2.7	2	53.0	47.0	-6.0	1	68.0	49.0	-19.0	3	44.0	46.0	2.0	3	42.3	36.3	-6.0
Jones	0	-	-	-	0	-	-	-	1	34.0	30.0	-4.0	1	36.0	33.0	-3.0	2	40.0	39.5	-0.5	3	35.6	30.6	-5.0
Kempton	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-
Longfellow	2	57.5	37.0	-20.5	3	36.0	43.3	7.3	6	34.6	40.5	5.8	3	38.6	43.3	4.7	10	42.0	39.4	-2.6	2	49.5	55.5	6.0
Longstreet	3	45.3	42.6	-2.7	1	54.0	34.0	-20.0	1	17.0	42.0	25.0	1	33.0	33.0	0.0	1	34.0	32.0	-2.0	0	-	-	-
J. Loomis	8	53.1	43.8	-9.3	5	55.2	53.8	-1.4	6	33.8	35.0	1.2	4	52.7	50.7	-2.0	1	46.0	71.0	25.0	6	29.8	28.1	-1.7
Merrill Park	3	45.7	33.0	-12.7	3	49.3	40.0	-9.3	3	47.6	49.3	1.7	1	48.0	48.0	0.0	0	-	-	-	4	55.0	53.5	-1.5
Chester Miller	1	13.0	44.0	31.0	5	36.8	46.6	9.8	2	68.5	72.5	4.0	3	55.0	48.6	-6.4	3	54.6	47.3	-7.3	4	44.2	43.5	-0.7
John Moore	3	22.6	40.6	18.0	5	36.4	47.8	11.4	2	36.0	53.5	17.5	2	51.0	54.5	3.5	1	53.0	45.0	-8.0	0	-	-	-
Morley	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-	1	28.0	42.0	14.0	0	-	-	-
J. Rouse	6	37.6	37.5	-0.1	10	42.9	39.6	-3.3	5	50.8	55.2	4.4	7	56.5	49.4	-7.1	9	43.4	36.5	-6.9	4	53.5	50.7	-2.8
Saline	1	7.0	27.0	20.0	0	-	-	-	1	24.0	7.0	-17.0	0	-	-	-	0	-	-	-	2	41.0	37.0	-4.0
Stone	8	33.0	42.6	9.6	6	34.3	33.5	-0.8	4	35.5	31.2	-4.3	5	46.2	44.0	-4.2	4	49.7	49.2	-0.5	4	52.5	53.7	1.2
Webber Ele.	8	52.3	43.7	-8.7	6	51.8	53.6	1.8	7	36.1	39.1	3.0	3	47.0	43.6	-3.4	6	39.1	48.6	9.5	4	50.5	53.0	2.5
Zilwaukee	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-
TOTAL	76	40.5	44.0	3.5	65	44.8	44.8	0.0	53	43.0	44.1	1.1	50	50.3	45.9	-4.4	55	43.1	43.3	0.2	45	44.3	43.0	-1.3

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TABLE D.11. MEAN NORMAL CURVE EQUIVALENT GAIN BY BUILDING AND GRADE FOR ALL 1-6 MIGRANT PUPILS IN TOTAL MATH (BASIC SKILLS) BASED ON APRIL-MAY, 1991 PRE-TESTING AND APRIL-MAY, 1992 POST-TESTING ON CAT (SPRING TO SPRING)

BUILDING	GRADE 1				GRADE 2				GRADE 3				GRADE 4				GRADE 5				GRADE 6			
	Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents			
	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss
Baillie	0	-	-	-	2	57.5	85.5	28.0	2	72.5	56.5	-16.0	0	-	-	-	0	-	-	-	1	68.0	78.0	10.0
Foulter	0	-	-	-	1	67.0	68.0	1.0	1	87.0	87.0	0.0	3	63.6	49.6	-14.0	3	60.0	55.0	-5.0	2	46.5	74.0	27.5
Emerson	0	-	-	-	6	29.4	27.0	-2.4	1	54.0	50.0	-4.0	5	47.4	33.6	-13.8	1	44.0	30.0	-14.0	5	59.2	44.2	-15.0
Feorbringer	0	-	-	-	1	80.0	74.0	-6.0	1	65.0	54.0	-11.0	0	-	-	-	1	67.0	77.0	10.0	0	-	-	-
Hallo Haley	0	-	-	-	1	47.0	63.0	16.0	2	52.5	59.5	7.0	4	52.5	42.2	-10.3	3	25.3	25.6	0.3	1	34.0	34.0	0.0
Handley	0	-	-	-	0	-	-	-	0	-	-	-	2	87.0	89.5	2.5	0	-	-	-	0	-	-	-
Hoovenrich	0	-	-	-	2	56.5	46.0	-10.5	0	-	-	-	2	38.5	33.0	-5.5	1	36.0	20.0	-16.0	0	-	-	-
Horig	0	-	-	-	3	83.3	58.6	-24.7	4	48.7	57.0	8.3	0	-	-	-	2	33.5	50.0	16.5	0	-	-	-
Houghton	0	-	-	-	1	48.0	87.0	39.0	2	57.5	49.0	-8.5	2	54.0	51.5	-2.5	3	36.3	49.0	12.7	1	47.0	10.0	-37.0
Jerome	0	-	-	-	3	28.6	41.6	13.0	2	71.5	57.5	-14.0	1	50.0	49.0	-1.0	3	40.3	43.3	3.0	3	50.3	45.0	-5.3
Jones	0	-	-	-	0	-	-	-	1	58.0	36.0	-22.0	1	81.0	68.0	-13.0	2	47.5	37.5	-10.0	3	45.0	50.3	5.3
Kempton	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-
Longfellow	0	-	-	-	3	52.6	52.6	0.0	6	52.0	48.0	-4.0	3	75.0	54.0	-21.0	10	53.4	54.3	0.9	2	59.0	64.0	5.0
Longstreet	0	-	-	-	1	85.0	54.0	-31.0	1	33.0	-	-	1	44.0	35.0	-9.0	1	42.0	47.0	5.0	0	-	-	-
J. Loomis	0	-	-	-	5	68.0	68.6	0.6	6	48.8	33.0	-15.8	4	48.0	60.7	12.7	1	65.0	59.0	-6.0	6	40.5	37.5	-3.0
Merrill Park	0	-	-	-	3	56.6	45.3	-11.3	3	56.3	62.0	5.7	1	45.0	52.0	7.0	0	-	-	-	4	61.5	63.5	2.0
Chester Miller	0	-	-	-	5	57.6	61.6	4.0	2	71.5	68.0	-3.5	3	67.3	51.0	-16.3	3	62.6	66.6	4.0	4	54.5	56.2	1.7
John Moore	0	-	-	-	5	60.2	48.8	-11.4	2	56.0	72.0	16.0	2	80.5	68.0	-12.5	1	43.0	45.0	2.0	0	-	-	-
Morley	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-	1	30.0	53.0	23.0	0	-	-	-
J. Moose	0	-	-	-	10	67.6	62.5	-5.1	5	63.4	56.4	-7.0	7	57.1	51.8	-5.3	9	50.6	49.0	-1.6	4	69.2	56.0	-13.2
Saline	0	-	-	-	0	-	-	-	1	10.0	30.0	20.0	0	-	-	-	0	-	-	-	2	59.5	47.0	-12.5
Stone	0	-	-	-	6	34.5	44.3	9.8	4	35.0	40.7	5.7	5	55.0	56.4	1.4	4	47.2	57.5	10.3	4	57.5	50.0	-7.5
Webber Ele.	0	-	-	-	6	63.5	55.5	-8.0	7	48.2	50.5	2.3	3	59.6	50.0	-9.6	6	46.6	53.6	7.0	4	53.7	55.7	2.0
Zilwaukee	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-
TOTAL	0	-	-	-	64	56.4	54.4	-2.0	53	53.4	51.5	-1.9	49	58.1	51.5	-6.6	55	47.6	50.2	2.6	46	54.1	51.0	-3.1

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TABLE D.12. MEAN NORMAL CURVE EQUIVALENT GAIN BY BUILDING AND GRADE FOR ALL 1-6 MIGRANT PUPILS IN MATHEMATICS CONCEPTS AND APPLICATIONS (ADVANCED SKILLS) BASED ON APRIL-MAY, 1991 PRE-TESTING AND APRIL-MAY, 1992 POST-TESTING ON CAT (SPRING TO SPRING)

BUILDING	GRADE 1 Normal Curve Equivalents				GRADE 2 Normal Curve Equivalents				GRADE 3 Normal Curve Equivalents				GRADE 4 Normal Curve Equivalents				GRADE 5 Normal Curve Equivalents				GRADE 6 Normal Curve Equivalents			
	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss
Baillie	2	62.0	57.5	-4.5	2	50.0	82.5	32.5	2	63.5	44.0	-19.5	0	-	-	-	0	-	-	-	1	50.0	64.0	14.0
Coulter	2	32.5	56.5	24.0	1	68.0	53.0	-15.0	1	81.0	83.0	2.0	3	62.0	45.3	-16.7	3	52.3	53.6	1.3	2	45.5	68.0	22.5
Emerson	4	55.2	53.2	-2.0	6	30.8	34.6	3.8	1	36.0	64.0	28.0	5	46.6	41.4	-5.2	1	50.0	44.0	-6.0	5	56.5	39.8	-16.8
Fourbringer	2	62.0	34.5	-27.5	1	81.0	80.0	-1.0	1	56.0	46.0	-10.0	0	-	-	-	1	68.0	70.0	2.0	0	-	-	-
Hallo Haley	6	30.5	58.1	27.6	1	31.0	72.0	41.0	2	49.5	60.5	11.0	4	46.0	44.7	-1.3	3	31.6	25.0	-6.6	1	41.0	42.0	1.0
Handley	0	-	-	-	0	-	-	-	0	-	-	-	2	79.5	90.0	16.5	0	-	-	-	0	-	-	-
Hoovenrich	3	56.3	61.0	4.7	2	61.5	52.5	-9.0	0	-	-	-	2	48.5	35.5	-13.0	1	37.0	15.0	-22.0	0	-	-	-
Horig	5	48.8	66.0	17.2	3	67.3	59.0	-8.3	4	59.2	61.5	2.3	0	-	-	-	2	29.5	48.0	18.5	0	-	-	-
Houghton	3	59.6	57.0	-2.6	1	58.0	93.0	35.0	2	58.0	51.5	-6.5	2	67.5	59.5	-8.0	3	40.0	49.0	9.0	1	47.0	1.0	-46.0
Jerome	5	35.6	52.8	17.2	3	44.0	48.0	4.0	2	61.0	53.5	-7.5	1	44.0	50.0	6.0	3	46.0	48.0	2.0	3	48.0	45.0	-3.0
Jones	0	-	-	-	0	-	-	-	1	46.0	34.0	-12.0	1	60.0	53.0	-7.0	2	44.0	43.5	-0.5	3	41.0	46.3	5.3
Kempton	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-
Longfellow	2	85.0	68.5	-16.5	3	45.0	50.3	5.3	6	48.0	50.3	2.3	3	71.6	50.3	-21.3	10	52.9	55.6	2.7	2	58.5	58.5	0.0
Longstreet	3	19.0	58.6	39.6	1	68.0	53.0	-15.0	1	36.0	44.0	8.0	1	47.0	35.0	-12.0	1	38.0	53.0	15.0	0	-	-	-
J. Loomis	8	51.7	32.6	-19.1	5	64.0	63.4	3.4	6	55.1	35.0	-20.1	4	56.2	55.7	-0.5	1	85.0	67.0	-18.0	6	41.8	40.1	-1.7
Merrill Park	3	30.0	48.3	18.3	3	57.0	48.3	-8.7	3	55.3	62.0	6.7	1	56.0	55.0	-1.0	0	-	-	-	4	64.0	61.5	-2.5
Chester Miller	1	20.0	39.0	19.0	5	59.6	53.8	-5.8	2	71.0	74.5	3.5	3	78.6	52.0	-26.6	3	66.3	67.3	1.0	4	54.5	54.7	0.2
John Moore	3	50.3	52.6	2.3	5	59.0	43.2	-15.8	2	52.5	74.5	22.0	2	72.0	76.5	4.5	1	44.0	41.0	-3.0	0	-	-	-
Morley	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-	1	33.0	59.0	26.0	0	-	-	-
J. Reese	7	42.5	51.2	8.7	10	63.0	63.2	0.2	5	61.8	53.4	-8.4	7	61.0	53.2	-7.8	9	48.2	51.5	3.3	4	62.5	48.7	-13.8
Salina	1	1.0	41.0	40.0	0	-	-	-	1	17.0	17.0	0.0	0	-	-	-	0	-	-	-	2	61.0	43.5	-17.5
Stone	8	47.2	42.3	-4.9	6	39.3	43.1	3.8	4	35.5	38.0	2.5	5	52.4	49.0	-3.4	4	50.2	49.2	-1.0	4	58.0	50.0	-8.0
Webber Ele.	8	46.7	44.5	-2.2	6	58.1	54.0	-4.1	7	54.0	50.7	-3.2	3	61.6	49.0	-12.6	6	48.1	58.8	10.7	4	53.2	58.0	4.8
Zilwaukee	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-
TOTAL	76	45.2	50.2	5.0	64	54.4	54.4	0.0	53	53.4	51.3	-2.1	49	59.0	51.9	-7.1	55	48.4	51.4	3.0	46	53.0	48.9	-4.1

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APPENDIX D

TABLE D.13. MEAN NORMAL CURVE EQUIVALENT GAIN BY BUILDING AND GRADE FOR ALL 7-9 MIGRANT PUPILS IN TOTAL READING (BASIC SKILLS) AND READING COMPREHENSION (ADVANCED SKILLS) BASED ON APRIL-MAY, 1991 PRE-TESTING AND APRIL-MAY, 1992 POST-TESTING ON CAT (SPRING TO SPRING)

Subject/ School	GRADE 7 Normal Curve Equivalents				GRADE 8 Normal Curve Equivalents				GRADE 9 Normal Curve Equivalents			
	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss
TOTAL MATHEMATICS												
Central	3	12.6	15.6	3.0	4	29.5	29.7	0.2	2	41.5	43.0	1.5
North	8	47.6	47.1	-0.5	8	33.6	33.8	0.2	9	44.8	43.8	-1.0
South	12	40.7	38.2	-2.5	4	29.7	32.2	2.5	11	49.2	51.0	1.8
Webber	8	28.7	20.6	-8.1	20	34.4	35.1	0.7	4	29.5	25.2	-4.3
System	31	36.7	33.8	-2.9	36	33.1	33.9	0.8	26	44.1	44.0	-0.1
CONCEPTS AND APPLICATIONS												
Central	3	25.6	23.6	-2.0	4	34.5	34.2	-0.3	2	49.0	47.0	-2.0
North	8	48.3	47.1	-1.2	8	39.2	36.1	-3.1	9	50.7	45.4	-5.3
South	12	47.8	38.2	-9.6	4	38.0	40.0	2.0	11	53.0	48.3	-4.7
Webber	8	31.0	20.5	-10.5	20	33.7	37.2	3.4	4	35.7	24.7	-11.0
System	31	41.4	34.5	-6.9	36	35.5	36.9	1.4	26	49.3	43.6	-5.6

APPENDIX D

TABLE D.14. MEAN NORMAL CURVE EQUIVALENT GAIN BY BUILDING AND GRADE FOR ALL 7-9 MIGRANT PUPILS IN TOTAL MATHEMATICS (BASIC SKILLS) AND MATHEMATICS CONCEPTS AND APPLICATION (ADVANCED SKILLS) BASED ON APRIL-MAY, 1991 PRE-TESTING AND APRIL-MAY, 1992 POST-TESTING ON CAT (SPRING TO SPRING).

Subject/ School	GRADE 7 Normal Curve Equivalents				GRADE 8 Normal Curve Equivalents				GRADE 9 Normal Curve Equivalents			
	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss
TOTAL MATHEMATICS												
Central	3	43.0	30.0	-13.0	4	35.2	30.2	-5.0	2	47.0	54.5	7.5
North	8	58.8	57.8	-1.0	7	48.1	40.5	-7.6	11	56.5	51.0	-5.5
South	12	52.1	42.4	-9.7	4	44.7	39.5	-5.2	10	50.5	55.3	4.8
Webber	8	50.5	55.3	4.8	20	41.7	41.0	-0.7	4	38.0	35.5	-2.5
System	**31**	52.6	43.4	-9.2	35	42.6	39.5	-3.1	27	51.4	50.5	-0.9
CONCEPTS AND APPLICATIONS												
Central	3	39.0	31.3	-7.6	4	36.0	35.2	-0.8	2	42.5	52.5	10.0
North	8	71.0	64.8	-6.2	7	41.5	36.1	-5.4	11	56.2	54.4	-1.8
South	12	49.7	45.2	-4.5	4	44.5	42.5	-2.0	10	53.7	52.0	-1.7
Webber	8	36.3	28.7	-7.6	20	43.4	41.5	-1.9	4	37.0	35.2	-1.8
System	31	47.6	42.9	-4.7	35	42.3	39.8	-2.5	27	50.8	50.4	-0.4

APPENDIX D

TABLE D.15. MEAN NORMAL CURVE EQUIVALENT GAIN BY BUILDING AND GRADE FOR ALL 10-12 MIGRANT PUPILS IN TOTAL READING (BASIC SKILLS) AND READING COMPREHENSION (ADVANCED SKILLS) BASED ON APRIL-MAY, 1991 PRE-TESTING AND APRIL-MAY, 1992 POST-TESTING ON CAT (SPRING TO SPRING).

Subject/ School	GRADE 10 Normal Curve Equivalents				GRADE 11 Normal Curve Equivalents				GRADE 12 Normal Curve Equivalents			
	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss
TOTAL MATHEMATICS												
Arthur Hill	11	51.9	55.2	3.3	6	36.8	28.6	-8.2	7	35.5	33.0	-2.5
Saginaw High	4	37.2	42.2	5.0	0	-	-	-	1	30.0	39.0	9.0
System	15	48.0	51.8	3.8	6	36.8	28.6	-8.2	8	34.8	33.7	-1.1
CONCEPTS AND APPLICATIONS												
Arthur Hill	11	58.8	55.0	-3.8	6	40.6	32.5	-8.1	7	37.4	40.5	3.1
Saginaw High	4	39.5	32.5	7.0	0	-	-	-	1	40.0	46.0	6.0
System	15	53.6	49.0	-4.6	6	40.6	32.5	-8.1	8	37.7	41.2	3.5

APPENDIX D

TABLE D.16. MEAN NORMAL CURVE EQUIVALENT GAIN BY BUILDING AND GRADE FOR ALL 10-12 MIGRANT PUPILS IN TOTAL MATHEMATICS (BASIC SKILLS) AND MATHEMATICS CONCEPTS AND APPLICATION (ADVANCED SKILLS) BASED ON APRIL-MAY, 1991 PRE-TESTING AND APRIL-MAY, 1992 POST-TESTING ON CAT (SPRING TO SPRING).

Subject/ School	GRADE 10 Normal Curve Equivalents				GRADE 11 Normal Curve Equivalents				GRADE 12 Normal Curve Equivalents			
	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss
TOTAL MATHEMATICS												
Arthur Hill	19	60.4	62.1	1.7	13	47.8	44.5	-3.3	5	41.4	41.2	-0.2
Saginaw High	4	39.0	48.7	9.7	0	-	-	-	1	55.0	53.0	-2.0
System	23	56.7	59.7	3.0	13	47.8	44.5	-3.3	6	43.6	43.1	-0.5
CONCEPTS AND APPLICATIONS												
Arthur Hill	19	58.8	57.8	-1.0	13	44.6	40.2	-4.4	5	43.6	32.4	-11.2
Saginaw High	4	38.5	51.7	13.2	0	-	-	-	1	53.0	55.0	2.0
System	23	55.3	56.7	1.4	13	44.6	40.2	-4.4	6	45.1	36.1	-9.0

TABLE E.1. PERCENT OF 1991-92 STATE BILINGUAL/MIGRANT STUDENTS BY BUILDING AND GRADE ATTAINING OBJECTIVE 33 STATED MAIN IDEA*/ OBJECTIVE 36 CENTRAL THOUGHT CAT READING OBJECTIVES AS COMPARED TO AGREED UPON CRITERION PER GRADE LEVEL.**

BUILDING	GRADE 1				GRADE 2				GRADE 3				GRADE 4				GRADE 5				GRADE 6			
	Number Tested	Criterion %	91-92 %	Criterion Attained?	Number Tested	Criterion %	91-92 %	Criterion Attained?	Number Tested	Criterion %	91-92 %	Criterion Attained?	Number Tested	Criterion %	91-92 %	Criterion Attained?	Number Tested	Criterion %	91-92 %	Criterion Attained?	Number Tested	Criterion %	91-92 %	Criterion Attained?
Baillie	3	26	33	Yes	4	59	50	No	3	63	33	No	0	31	-	-	1	48	0	No	2	48	100	Yes
Coulter	2	26	0	No	6	59	80	Yes	2	63	100	Yes	4	31	25	No	3	48	100	Yes	2	48	100	Yes
Emerson	8	26	63	Yes	9	59	33	No	2	63	0	No	5	31	20	No	2	48	0	No	5	48	0	No
Fuerbringer	11	26	30	Yes	1	59	0	No	2	63	50	No	1	31	100	Yes	1	48	100	Yes	0	48	-	-
Belle Haley	7	26	57	Yes	6	59	33	No	5	63	50	No	5	31	0	No	4	48	0	No	2	48	50	Yes
Handley	7	26	100	Yes	3	59	100	Yes	0	63	-	-	1	31	100	Yes	1	48	100	Yes	0	48	-	-
Heavenrich	4	26	25	No	3	59	33	No	0	63	-	-	2	31	0	No	1	48	0	No	1	48	0	No
Herig	11	26	36	Yes	13	59	77	Yes	5	63	80	Yes	0	31	-	-	3	48	33	No	1	48	100	Yes
Houghton	4	26	50	Yes	6	59	80	Yes	2	63	100	Yes	2	31	50	Yes	3	48	67	Yes	1	48	0	No
Jerome	6	26	50	Yes	11	59	71	Yes	2	63	50	No	1	31	0	No	3	48	33	No	3	48	33	No
Jones	1	26	0	No	1	59	100	Yes	1	63	0	No	2	31	0	No	2	48	50	Yes	3	48	33	No
Kempton	4	26	75	Yes	3	59	67	Yes	2	63	100	Yes	0	31	-	-	2	48	50	Yes	0	48	-	-
Longfellow	11	26	10	No	15	59	27	No	9	63	33	No	4	31	25	No	10	48	40	No	4	48	50	Yes
Longstreet	4	26	25	No	1	59	0	No	0	63	-	-	1	31	0	No	1	48	0	No	0	48	-	-
J. Loomis	11	26	27	Yes	6	59	67	Yes	7	63	14	No	3	31	0	No	1	48	100	Yes	6	48	0	No
Merrill Park	9	26	0	No	11	59	45	No	5	63	60	No	1	31	100	Yes	2	48	100	Yes	4	48	100	Yes
Chester Miller	14	26	50	Yes	11	59	55	No	3	63	100	Yes	4	31	50	Yes	4	48	75	Yes	5	48	40	No
John Moore	12	26	38	Yes	12	59	75	Yes	3	63	33	No	2	31	0	No	1	48	100	Yes	2	48	50	Yes
Morley	2	26	50	Yes	1	59	100	Yes	0	63	-	-	0	31	-	-	1	48	0	No	0	48	-	-
J. Rouse	15	26	27	Yes	14	59	23	No	9	63	22	No	10	31	60	Yes	12	48	42	No	8	48	63	Yes
Salina	3	26	0	No	0	59	-	-	2	63	0	No	1	31	100	Yes	0	48	-	-	3	48	0	No
Stone	18	26	22	No	11	59	20	No	5	63	40	No	5	31	40	Yes	4	48	75	Yes	4	48	100	Yes
Webber Ele.	15	26	40	Yes	15	59	67	Yes	10	63	30	No	5	31	0	No	10	48	44	No	6	48	50	Yes
Zilwaukee	2	26	0	No	1	59	100	Yes	0	63	-	-	1	31	0	No	1	48	N/A	-	1	48	100	Yes
TOTAL	185	26	36	Yes	160	59	53	No	79	63	42	No	60	31	30	No	73	48	47	No	63	48	48	Yes

*Objective 33 applies only to grade one and Objective 36 is applicable to grades two through six.
**State Bilingual/Migrant program participants will equal or exceed agreed upon criterion per grade level found in Appendix C.

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TABLE E.2. PERCENT OF 1991-92 STATE BILINGUAL/MIGRANT STUDENTS BY BUILDING AND GRADE ATTAINING OBJECTIVE 37 INTERPRETING EVENTS CAT READING OBJECTIVE AS COMPARED TO AGREED UPON CRITERION PER GRADE LEVEL.*

BUILDING	GRADE 1				GRADE 2				GRADE 3				GRADE 4				GRADE 5				GRADE 6			
	Number Tested	Criterion %	91-92 %	Criterion Attained?	Number Tested	Criterion %	91-92 %	Criterion Attained?	Number Tested	Criterion %	91-92 %	Criterion Attained?	Number Tested	Criterion %	91-92 %	Criterion Attained?	Number Tested	Criterion %	91-92 %	Criterion Attained?	Number Tested	Criterion %	91-92 %	Criterion Attained?
Baillie	3	26	0	No	4	59	50	No	3	63	0	No	0	34	-	-	1	50	0	No	2	58	50	No
Coulter	2	26	0	No	6	59	100	Yes	2	63	50	No	4	34	25	No	3	50	67	Yes	2	58	100	Yes
Emerson	8	26	25	No	9	59	44	No	2	63	100	Yes	5	34	40	Yes	2	50	0	No	5	58	40	No
Fuerbringer	11	26	60	Yes	1	59	100	Yes	2	63	50	No	1	34	100	Yes	1	50	100	Yes	0	58	-	-
Hallo Haley	7	26	57	Yes	6	59	50	No	5	63	50	No	5	34	40	Yes	4	50	25	No	2	58	50	No
Handley	7	26	100	Yes	3	59	100	Yes	0	63	-	-	1	34	100	Yes	1	50	100	Yes	0	58	-	-
Heavenrich	4	26	25	No	3	59	33	No	0	63	-	-	2	34	0	No	1	50	0	No	1	58	0	No
Herig	11	26	36	Yes	13	59	54	No	5	63	60	No	0	34	-	-	3	50	33	No	1	58	100	Yes
Houghton	4	26	75	Yes	6	59	100	Yes	2	63	100	Yes	2	34	50	Yes	3	50	33	No	1	58	0	No
Jerome	6	26	50	Yes	11	59	57	No	2	63	100	Yes	1	34	100	Yes	3	50	67	Yes	3	58	33	No
Jones	1	26	0	No	1	59	0	No	1	63	0	No	2	34	0	No	2	50	50	Yes	3	58	67	Yes
Kempton	4	26	25	No	3	59	100	Yes	2	63	50	No	0	34	-	-	2	50	50	Yes	0	58	-	-
Longfellow	11	26	0	No	15	59	33	No	9	63	56	No	4	34	25	No	10	50	50	Yes	4	58	75	Yes
Longstreet	4	26	0	No	1	59	0	No	0	63	-	-	1	34	100	Yes	1	50	0	No	0	58	-	-
J. Loomis	11	26	36	Yes	6	59	67	Yes	7	63	29	No	3	34	67	Yes	1	50	100	Yes	6	58	0	No
Merrill Park	9	26	11	No	11	59	55	No	5	63	60	No	1	34	0	No	2	50	0	No	4	58	75	Yes
Chester Miller	14	26	21	No	11	59	64	Yes	3	63	100	Yes	4	34	75	Yes	4	50	25	No	5	58	60	Yes
John Moore	12	26	31	Yes	12	59	58	No	3	63	67	Yes	2	34	50	Yes	1	50	0	No	2	58	0	No
Morley	2	26	0	No	1	59	0	No	0	63	-	-	0	34	-	-	1	50	100	Yes	0	58	-	-
J. Rouse	15	26	27	Yes	14	59	31	No	9	63	67	Yes	10	34	40	Yes	12	50	8	No	8	58	63	Yes
Salina	3	26	0	No	0	59	-	-	2	63	0	No	1	34	100	Yes	0	50	-	-	3	58	0	No
Stone	18	26	33	Yes	11	59	20	No	5	63	20	No	5	34	40	Yes	4	50	50	Yes	4	58	100	Yes
Webber Ele.	15	26	20	No	15	59	73	Yes	10	63	30	No	5	34	60	Yes	10	50	56	Yes	6	58	83	Yes
Zitzuukee	2	26	0	No	1	59	100	Yes	0	63	-	-	1	34	0	No	1	50	N/A	-	1	58	100	Yes
TOTAL	185	26	31	Yes	160	59	54	No	79	63	50	No	60	34	45	Yes	73	50	39	No	63	58	54	No

*State Bilingual/Migrant program participants will equal or exceed agreed upon criterion per grade level found in Appendix C.

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TABLE E.3. PERCENT OF 1991-92 STATE BILINGUAL/MIGRANT STUDENTS BY BUILDING AND GRADE ATTAINING OBJECTIVE 39 WRITING TECHNIQUES CAT READING OBJECTIVE AS COMPARED TO AGREED UPON CRITERION PER GRADE LEVEL.*

BUILDING	GRADE 1				GRADE 2				GRADE 3				GRADE 4				GRADE 5				GRADE 6			
	Number Tested	Criterion %	91-92 %	Criterion Attained?	Number Tested	Criterion %	91-92 %	Criterion Attained?	Number Tested	Criterion %	91-92 %	Criterion Attained?	Number Tested	Criterion %	91-92 %	Criterion Attained?	Number Tested	Criterion %	91-92 %	Criterion Attained?	Number Tested	Criterion %	91-92 %	Criterion Attained?
Baillie	-	-	-	-	-	-	-	-	-	-	-	-	0	28	-	-	1	36	0	No	2	31	50	Yes
Coulter	-	-	-	-	-	-	-	-	-	-	-	-	4	28	0	No	3	36	33	No	2	31	50	Yes
Emerson	-	-	-	-	-	-	-	-	-	-	-	-	5	28	20	No	2	36	0	No	5	31	0	No
Feurbringer	-	-	-	-	-	-	-	-	-	-	-	-	1	28	0	No	1	36	0	No	0	31	-	-
Hallo Haley	-	-	-	-	-	-	-	-	-	-	-	-	5	28	0	No	4	36	0	No	2	31	50	Yes
Handley	-	-	-	-	-	-	-	-	-	-	-	-	1	28	100	Yes	1	36	0	No	0	31	-	-
Hoovenrich	-	-	-	-	-	-	-	-	-	-	-	-	2	28	0	No	1	36	0	No	1	31	0	No
Horig	-	-	-	-	-	-	-	-	-	-	-	-	0	28	-	-	3	36	33	No	1	31	0	No
Houghton	-	-	-	-	-	-	-	-	-	-	-	-	2	28	0	No	3	36	67	Yes	1	31	0	No
Jerome	-	-	-	-	-	-	-	-	-	-	-	-	1	28	100	Yes	3	36	33	No	3	31	0	No
Jones	-	-	-	-	-	-	-	-	-	-	-	-	2	28	0	No	2	36	50	Yes	3	31	0	No
Kempton	-	-	-	-	-	-	-	-	-	-	-	-	0	28	-	-	2	36	0	No	0	31	-	-
Longfellow	-	-	-	-	-	-	-	-	-	-	-	-	4	28	0	No	10	36	10	No	4	31	25	No
Longstreet	-	-	-	-	-	-	-	-	-	-	-	-	1	28	0	No	1	36	0	No	0	31	-	-
J. Loomis	-	-	-	-	-	-	-	-	-	-	-	-	3	28	0	No	1	36	100	Yes	6	31	0	No
Merrill Park	-	-	-	-	-	-	-	-	-	-	-	-	1	28	0	No	2	36	100	Yes	4	31	75	Yes
Chester Miller	-	-	-	-	-	-	-	-	-	-	-	-	4	28	50	Yes	4	36	75	Yes	5	31	0	No
John Moore	-	-	-	-	-	-	-	-	-	-	-	-	2	28	50	Yes	1	36	0	No	2	31	0	No
Morley	-	-	-	-	-	-	-	-	-	-	-	-	0	28	-	-	1	36	0	No	0	31	-	-
J. Reese	-	-	-	-	-	-	-	-	-	-	-	-	10	28	30	Yes	12	36	0	No	8	31	25	No
Saline	-	-	-	-	-	-	-	-	-	-	-	-	1	28	100	Yes	0	36	-	-	3	31	0	No
Stone	-	-	-	-	-	-	-	-	-	-	-	-	5	28	20	No	4	36	50	Yes	4	31	50	Yes
Webber Ele.	-	-	-	-	-	-	-	-	-	-	-	-	5	28	0	No	10	36	49	Yes	6	31	17	No
Zilwaukee	-	-	-	-	-	-	-	-	-	-	-	-	1	28	0	No	1	36	N/A	-	1	31	0	No
TOTAL	-	-	-	-	-	-	-	-	-	-	-	-	60	28	18	No	73	36	26	No	63	31	19	No

*State Bilingual/Migrant program participants will equal or exceed agreed upon criterion per grade level found in Appendix C.

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